

DEEP AND SUPERFICIAL CASES IN RUSSIAN

David A. Kilby



Ph.D. University of Edinburgh 1972



THE UNIVERSITY *of* EDINBURGH

Thesis scanned from best copy available:  
may contain faint or blurred text, and / or  
cropped or missing pages.

Deep and superficial cases in Russian

Kilby, David A.

PhD

1973

### Digitisation notes:

- Page 205 numbered as page 105 in original

## SUMMARY

This thesis represents an attempt at a more explicit and simultaneously more unified account of cases in Russian than has been achieved in previous studies. The theoretical basis is an adaptation of the model presented in John Anderson's The Grammar of Case: Towards a Localistic Theory (1971).

Chapter 1 reviews previous studies of cases, and then presents a model in which non-categorial elements are linked together by a very restricted number of relational elements ('deep cases'). This system of elements is represented in dependency trees. The rest of the thesis is an analysis of cases on this basis.

Chapter 2 discusses the key 'deep case' - locative. It is suggested that the locative and dative cases in Russian are closely connected with this 'deep case'.

Chapter 3 is an analysis of instrumental case, and the related ablative prepositions. A reanalysis of the case repertoire is suggested, leaving only two deep cases - location and motion. A definition of the instrumental-ablative is proposed in terms of position with respect to either of the deep cases.

Chapter 4 examines the traditionally 'abstract' cases - nominative, accusative and genitive. This idea is supported as regards the nominative, but more concrete descriptions are provided for the accusative and the genitive. The accusative is seen as being associated with motion, while the genitive receives a definition similar to that used for the instrumental and complementary to it.

Chapter 5 looks at some of the possibilities for further development of the model exemplified throughout the thesis. Transformational operations, prepositions and inalienable possession are discussed, albeit inconclusively.



## PREFACE

This thesis represents an attempt to utilise some of the recent developments in transformational theory - notably 'generative semantics' (Lakoff 1971) and 'case grammar' (Fillmore 1968, Anderson 1971) in a fresh approach to the case system of Russian; simultaneously, it is an attempt at showing that the nature of the Russian case system is crucial evidence in justifying a considerable adaptation of the theory espoused in these new developments. As a glance at the bibliography will show, the writing of this thesis was considerably influenced by the published and unpublished works of Jim Miller and John Anderson. At least as valuable were the many discussions on this and other topics which I have had with them while the thesis was being prepared. Jim Miller has made many comments on the content and presentation of this thesis, and is responsible for many improvements in it. I am also grateful to Mrs. E. F. Merchanskaja, Russian Language Assistant in the Department of Russian, University of Edinburgh, for her patient help as a native informant while I was at Edinburgh.

## INDEX

|  | page |
|--|------|
| 1. Choosing a model . . . . .                              | 1    |
| 1.1. Studies of Russian case . . . . .                     | 2    |
| 1.1.1. Jakobson . . . . .                                  | 2    |
| 1.1.2. Soviet studies . . . . .                            |      |
| 1.1.3. Other . . . . .                                     | 16   |
| 1.2. Transformational approaches to prepositions . . . . . | 17   |
| 1.2.1. Gruber . . . . .                                    | 18   |
| 1.2.2. Postal . . . . .                                    | 19   |
| 1.2.3. Fillmore . . . . .                                  | 21   |
| 1.2.4. Anderson . . . . .                                  | 23   |
| 1.3. The status of case . . . . .                          | 25   |
| 1.3.1. Cases, Prepositions, Verbs . . . . .                | 27   |
| 1.3.2. Cases as verbs . . . . .                            | 28   |
| 1.4. Elaboration of the model . . . . .                    | 31   |
| 1.4.1. Categories and relations . . . . .                  | 31   |
| 1.4.2. The case repertoire . . . . .                       | 32   |
| 1.4.3. Underlying structures . . . . .                     | 34   |
| 1.4.4. The derivation of surface structures . . . . .      | 39   |
| 1.4.5. Methodological assumptions . . . . .                | 42   |
| 1.4.5.1. The unity of cases . . . . .                      | 42   |
| 1.4.5.2. Generative semantics . . . . .                    | 44   |
| 1.4.5.3. Verification . . . . .                            | 47   |
| 1.4.5.4. Omissions . . . . .                               | 48   |
| 1.4.5.5. Data . . . . .                                    | 48   |
| Footnotes to Chapter 1 . . . . .                           | 49   |
| 2. Locative . . . . .                                      | 54   |
| 2.1. Spatial locatives . . . . .                           | 54   |
| 2.2. 'Converseness' . . . . .                              | 63   |
| 2.3. Abstract locatives . . . . .                          | 66   |
| 2.4. Equative sentences . . . . .                          | 67   |
| 2.4.1. With 'pivot' words . . . . .                        | 68   |
| 2.4.2. With locative subject . . . . .                     | 69   |
| 2.4.3. With locative predicate . . . . .                   | 71   |

|  | page |
|--|------|
| 2.4.4. Locatives from above . . . . .        | 73   |
| 2.4.5. Complement structures . . . . .       | 74   |
| 2.5. Locatives with human nouns . . . . .    | 75   |
| 2.6. Qualifications for locativity . . . . . | 79   |
| 2.7. The Dative . . . . .                    | 81   |
| Footnotes to Chapter 2 . . . . .             | 89   |
| 3. Instrumental and Ablative . . . . .       | 91   |
| 3.1. Locative converses . . . . .            | 91   |
| 3.2. Reanalysis of dyn . . . . .             | 100  |
| 3.3. Recapitulation . . . . .                | 108  |
| 3.4. Ablative . . . . .                      | 111  |
| Footnotes to Chapter 3 . . . . .             | 115  |
| 4. Other cases . . . . .                     | 116  |
| 4.1. Nominative . . . . .                    | 116  |
| 4.2. Accusative . . . . .                    | 119  |
| 4.3. Genitive . . . . .                      | 129  |
| 4.3.1. Nominalisations . . . . .             | 129  |
| 4.3.2. Elsewhere . . . . .                   | 140  |
| 4.3.3. Negative Genitive . . . . .           | 143  |
| Footnotes to Chapter 4 . . . . .             | 156  |
| 5. Residual Problems . . . . .               | 159  |
| 5.1. The model . . . . .                     | 159  |
| 5.2. Dependency structures . . . . .         | 161  |
| 5.3. Raising . . . . .                       | 163  |
| 5.4. Prepositions . . . . .                  | 171  |
| 5.5. Inalienable possession . . . . .        | 181  |
| 5.5.1. Dative . . . . .                      | 181  |
| 5.5.2. Ellipsis . . . . .                    | 183  |
| 5.5.3. More on the Dative . . . . .          | 188  |
| 5.6. More on prepositions . . . . .          | 192  |
| 5.7. Some loose ends . . . . .               | 201  |
| 5.7.1. Negation . . . . .                    | 201  |

|                                  | page |
|----------------------------------|------|
| 5.7.2. 'Noun-ness' . . . . .     | 204  |
| 5.7.3. Linear order . . . . .    | 206  |
| Footnotes to Chapter 5 . . . . . | 209  |
| Bibliography . . . . .           | 211  |

1.

The purpose of the present study is to search for some theoretically satisfying way of describing the case system of Russian. Of course, there are many studies that attempt to deal with their description by simply listing uses, but these studies miss many important generalisations that can be made about the uses of cases; other studies provide a harmonious theoretical framework, but only succeed in accounting for the varied uses of cases by some sleight of hand. I attempt to show, in S1.1. that, whatever insights such studies may provide, they are not capable of further theoretical development.

Given that transformational grammar has managed to provide unexpected insights into many areas of grammar, the solutions offered by transformational grammarians to the problem of case (or, as most of these studies are of English, of prepositions) are examined in S1.2. and found to be surprisingly unrevealing. Even 'case grammar', which one might expect to solve, if anything, the problem of cases, does not have much more than other theories to say about the introduction of superficial cases. However, it does seem to offer a more promising basis than most other branches of transformational theory in the analysis of case.

The fundamental justification, therefore, of this study is that the problem of superficial cases, in spite of being one of the most-researched areas of language, has not been given a satisfactory solution - so much so that even the problem of what to look for in an analysis of cases is completely open. The value of

examining previous analyses of the Russian case system would therefore seem to lie chiefly in avoiding the mistakes made by previous investigators.

#### 1.1.

Although an extraordinary number of linguists have dealt with the cases of Russian at one time or another, not many accounts are of particular theoretical interest. Most modern Russian linguists adopt a strictly taxonomic approach, while Jakobson is the prime example of a linguist who has attempted to provide a plausible framework of general grammar around a systematic analysis of case.

##### 1.1.1.

Jakobson's case theory is founded on the doctrine of a 'general meaning' ('Gesamtbedeutung', 'signification générale') of morphological forms, which lies at the basis of each individual use of a morphological form (e.g. a case). As a unified system within a language, cases cannot be given individual semantic specifications, but are all defined and given a place within a system of semantic oppositions (or 'correlations').

Given this framework (which Jakobson shares with Hjelmslev), it is not possible to posit 'logical' oppositions where the two poles are mutually exclusive, because, for example, a case such as the nominative in Indo-European languages would resist definition, nobody having suggested a plausible meaning for the nominative. Thus Jakobson (and Hjelmslev too) is led to posit oppositions, one pole of which is positively defined in terms of a semantic feature,

the other of which is defined purely in terms of the lack of specification of that feature: i.e. "falls die Kategorie I das Vorhandsein von  $\alpha$  ankündigt, so kündigt die Kategorie II das Vorhandsein von  $\alpha$  nicht an, d.h. sie besagt nicht, ob  $\alpha$  anwesend ist oder nicht." (Jakobson 1936 p 56). Consequently, the unmarked member of an opposition includes in its range of meaning the meaning of the marked member.

In 1936, Jakobson posited four oppositions:

- (1) Direction (Bezugskorrelation) - acc. and dat. positively specified.
- (2) Scope (Umfangskorrelation) - gen. and loc. positively specified.
- (3) Position (Stellungskorrelation) - instr., dat. and loc. positively specified.
- (4) Formation (Gestaltungskorrelation) - locll and genll positively specified.

The fourth opposition is disposed of in Jakobson's 1958 paper, making the system an optimal one for eight cases. This system of oppositions suggests that the Russian nominative, being positively marked for no oppositions, can express any meaning, while the accusative, for instance, can express any meaning which is directional.

In addition, each case has a 'basic meaning' (Grundbedeutung, 'signification fondamentale'), which cannot be expressed in any other way; thus for the instrumental, this is the expression of the instrument meaning, for the dative - that of addressee.

Jakobson criticizes Hjelmslev for the latter's claim that case and word order operate on the same level: for Jakobson,

although word order may have the syntactic function as case, it cannot be identified at any level with cases, which are purely morphological elements not necessarily isomorphic with syntactic functions. Consequently, he objects to Hjelmslev's syntax-oriented interpretation of the Gothic nom. and acc.; however, he is surely wrong in claiming that this treatment violates the principles laid down by Hjelmslev himself. In fact, Jakobson's over-morphological approach lays him open to the sort of criticism put forward by Ebeling (1955): if morphological forms have a meaning, what is the meaning general to syncretised morphological forms - e.g. syna (acc. gen. I and gen. II)? Jakobson does not say.

Any attempt to test the validity of Jakobson's theory must compare the constraints it places on the use of cases with their actual use in sentences, but this is easier said than done. One possible way of constructing such a validating procedure would be to use semantic frames filled in with the features of direction, scope and position. (This latter feature does not fit very well in a semantic frame, but that does not seriously affect my argument, although it may be seen as a defect of Jakobson's theory). For example, in order to construct a frame to convey the information that Ivan killed Peter, we must specify Peter as directional (because an action is being directed at - against - him), non-limited (because the action causes a change of state in him - he dies) and non-peripheral. When used in such a context, features have to be specified either positively or negatively - unmarked features can only occur on the grammatical level. However, given the fact



that cases are specified either positively or neutrally, only negative features in a semantic frame can be incompatible with any particular case, as any positive specification is compatible equally with another positive specification and a neutral one. The two negative specifications in the above example will exclude dative, instrumental, genitive and locative, leaving nominative and accusative as possibilities:

(1) Ivan ubil Petra (A) "Ivan killed Peter" and

(2) Petr (N) byl ubit Ivanom. "Peter was killed by Ivan"

Of course, the theory does not show why the syntactic construction has to change with the case - why we cannot have:

(3) \*Ivan ubil Petr (N) or,

(4) \*Petra (A) byl ubit Ivanom.

So far so good, but this appears to pose more problems than it solves; given all possible semantic frames, something less than half of the cases will be excluded. Thus, if one could find a frame positively specified for all three oppositions, any case would be possible. The same point from a different angle is raised by Anderson (1971a) in discussing Hjelmslev;

"However, such an account, while avoiding such difficulties by assigning typically a complex value to nominatives, fails to explain the particular value the nominative has in any one instance" (p 8).

A related criticism is that Jakobson's system provides no means of coordinating the realizations of cases in sentences such as those above, where active and passive simultaneously affect the cases in both nouns.

In other words, by virtue of the fact that it is non-syntactic, Jakobson's theory of cases is inherently incapable of dealing with certain casual phenomena which depend on syntagmatic relations - the representation of superficial subjects, and their wholly regular alternations with other cases. The most that Jakobson can claim for his theory with respect to these areas of language is that it is not actually inconsistent with the data - merely it does not make any predictions about it.

These problems do not bring into question the validity of Jakobson's oppositions as such, but a much more fundamental objection to his theory is that the inadequacy of his definitions of the oppositions renders his claims virtually unverifiable. Thus, however intuitively satisfying one finds his characterization of the accusative and dative as cases of direction, it is distressing to find that there is no attempt to characterise the notion of direction, even by simply giving examples. Indeed, Jakobson's definition of the accusative is unrivalled in its unclarity:

"Der A besagt stets, dass irgend eine Handlung auf den bezeichneten Gegenstand gewissermassen gerichtet ist, an ihm sich äussert, ihn ergreift." (p 57).

This appears to suggest that these three characteristics have something in common; just what this common something is is not made clear. Similar objections may be made of the other oppositions; thus in dealing with the extent-correlation, Jakobson brings forward the phrase krasota devuški ("the girl's beauty"), in which, we are told, the quality is abstracted from its holder, who is con-

sequently considered only partially, and is in the genitive case.<sup>2</sup> This line of reasoning is totally unsatisfactory, as it brings the concept of limitation to complete vacuity; one might say that in this phrase the quality is limited in that it is considered only in relation to the girl; or that any member of any sentence of more than one word is limited by association with the other(s). Jakobson's treatment of the locative case gives rise to similar objections;

"Poduška ležít na divane 'das Kissen liegt auf dem Sofa': es ist das ganze Kissen, aber bloss die Oberfläche des Sofas ist in der Aussage beteiligt." (p 79).

This sort of argument could 'justify' anything.

One might quibble further on details. For instance, because of his morphological bias, Jakobson insists that cases and prepositions have different categorial status by virtue of their differing modes of meaning:

"In einer Sprache, welche ein System der präpositionalen Fügungen mit einem unabhängigen Kasussystem vereinigt, unterscheiden sich die Bedeutungen der beiden Systeme in dem Sinne, das in der präpositionalen Fügung die Beziehung an sich in den Blick genommen wird, während sie im präpositionslosen Gefüge etwa zu einer Eigenschaft des Gegenstandes wird." (p 55).

He sees further evidence for this difference in the fact that a preposition may govern several cases, and a case may be governed by several prepositions. The first argument is unprovable, while the second is true, but does not prove the point that they are

categorially distinct (see 1.3.1. for a discussion of this problem).

In spite of his rejection of syntactic evidence as relevant to case theory, Jakobson appears to violate his own principles quite seriously; the opposition of marginality appears to be purely syntactic, although it also has certain connexions with what has been called 'information structure' (Halliday 1967) or 'functional sentence perspective' (Firbas 1966). Thus the affected object, which, in general, is expressed by the accusative, is expressed by the dative in construction with the 'pro-verb' - i.e. delat' čto komu ("to do something to somebody"). There is no semantic explanation for the opposition, but this can be expressed in fairly simple syntactic terms; consequently, the dat.-acc. opposition, which Jakobson expresses by the notion of marginality, is a syntactic one. But the way in which Jakobson describes the behaviour of the marginal cases is not very much different from that in which he describes the accusative:

"Ein Peripherie setzt ein Zentrum voraus, ein Randkasus setzt das Vorhandensein eines zentralen Inhaltes in der Aussage voraus, welchen der Randkasus mitbestimmt. Dabei muss dieser Zentralinhalt nicht unbedingt sprachlich ausgedrückt sein." (p 68)

"Die Bedeutung des A-s ist so eng und unmittelbar mit der Handlung verbunden, dass er ausschliesslich von einem Zeitwort regiert werden kann und sein selbständiger Gebrauch immer ein ausgelassenes und hinzugedachtes Zeitwort empfinden lässt." (p 57)

If this implies that the accusative is also marginal, then Jakobson's classification is wrong. But even if not, Jakobson's theory of markedness implies that the accusative should be able to express marginality; I wonder how one could tell the difference?

In spite of these shortcomings, Jakobson's theory is a very attractive one, which undoubtedly is valid in many respects. However, its faults of vagueness and of failing to account for the individual meanings of a case make it unsuitable, in my opinion, as a basis for further investigation of Russian cases; it will simply be an added bonus if the results of an explicit investigation turn out to coincide partially with Jakobson's.

It is, however, interesting to note that Růžička (1970) uses Jakobson's features in a generative model of a small part of Russian syntax. However, he has to modify them so that they are specified either positively or negatively (but not unmarked), in order to formulate explicit case introduction transformations. Unfortunately, so little exemplification of this is given that it is impossible to assess its adequacy. I remain sceptical.

#### 1.1.2.

Jakobson's study, although widely quoted, has left little impression on Soviet linguistic thought, and it is therefore possible to treat Russian case theory as a single line of development, apart from Jakobson. Many of the newer trends would no doubt treat case in a rather different framework (e.g. Šaumjan, Apresjan,<sup>3</sup> etc.) but none of them have yet treated it explicitly.<sup>4</sup>

The basic idea behind most Soviet treatments of Russian cases appears to be the splitting of each case into as many subgroups as possible; this is accomplished primarily by formal criteria (adverbial/adnominal, with or without prepositions, etc.), and secondly by fairly transparent semantic criteria (time, place, cause, etc.). There may also be some less obvious semantic subdivisions. The ideal of this approach, it seems, would be a system of purely formal subdivisions resulting in a series of semantically homogeneous groups.

An early example of this sort of approach is Peškovskij (1956); he separates verbal and nominal government, cases with and without prepositions, and then each case is divided into subgroups; these may be established by purely formal criteria - e.g. the ad-verbal, prepositionless gen. has subgroups for its use with negated transitive verbs, and for its predicative use - or by supposedly semantically homogeneous labels - e.g. gen. of aim with ždat' ("wait for"), želat' ("desire"), dostigat' ("reach"), trebovat' ("demand"). As with Jakobson's features, there is no way other than intuitive feeling to justify these groups. It is interesting that Peškovskij defines the dative as the only case with a single meaning - that of indirect object (addressee). It is, however, disappointing that he only attempts to justify this for verbs with double objects, while he claims that this meaning is 'almost annulled' (*reduciruet'sja do neulovimosti* p 301) by its syntactic environment. Here again, his definition may be intuitively pleasing, but there is little or no evidence to go with it.

The two Academy Grammars (Vinogradov et al. 1952-4, Švedova 1970), both of which aim for as complete a description as possible of all levels of Russian grammar, examine Russian cases in three sections; morphology - where the fundamental meanings of cases are explained, phrase-level (slovosočëtanie) - where all governed cases are exemplified in their various meanings, and sentence-level, where non-governed uses of cases are exemplified. There is a very considerable overlap between these three sections, and much of what is said in one could equally well be said in another. In the old Academy Grammar this is perhaps understandable, as it aims to put forward a system of normative rules which will be accessible to everyone. The new Academy Grammar, on the other hand, aims to "show linguistic phenomena in a system, consistently separating its formal and functional aspects..... In the treatment of grammatical phenomena, the authors have sought precise definitions" (pp 3-4).

The old Academy Grammar uses subdivisions very like those of Peškovskij, although the individual analyses differ considerably. The final subdivisions may be purely syntactic - e.g. the predicative instrumental, semantico-syntactic - e.g. the instrumental of agent in passive constructions, or purely semantic - the 'instrumental of consent', which includes paxnet senom ("smells of hay"), rukovodit' zanjatijami ("supervises studies") and dorožit slavoj ("values fame"). From this we see that there has been no progress since Peškovskij in supporting analyses. In the phrase-level section, a distinction is made between strong and weak government, the former

being given the semantic (?) label of 'objective', the latter being given such labels as 'spatial', 'temporal' and 'causal'.

In the new Academy Grammar, the morphological section is largely redundant, as it is mostly repeated in greater detail in the phrase-level treatment. However, this is the only place in which the nominative is mentioned in any detail, and it is worth while repeating the definition given there to demonstrate the strange use of the word 'meaning';

"Of these six cases, only the meaning of the nominative is unified: it denotes the absence of

any relation between words, i.e. the null relation" (p 326).

I cannot interpret this statement in any way that would make it true. The chapters on government, along with the following section 'parataxis' (as Axmanova's dictionary translates primykanie), is based on a taxonomy of considerable ingenuity. All the subdivisions of the old Academy Grammar are used; there is also the distinction of government and parataxis,<sup>5</sup> the latter apparently somewhat weaker than weak government; government may be single or double (i.e. with one or two objects), variative or non-variative (i.e. with or without other cases as synonyms), and an object may be transformable into a noun in the nominative by passivization or not. Objects may be abstract or concrete with regard to the relations they express; abstract relations have three subdivisions - objective, which "denote an object onto which is directed an active or passive quality (i.e. an action or a property)" (p 490), subjective, which "denotes an object which is producer of that action or bearer of that property which is named by the governing word" (p 490) and



completive, in which "the dependent word is an obligatory semantic addition supplementing the informational inadequacy of the governing word." (p 487). These definitions, as well as being somewhat unclear, do not seem to be mutually exclusive of each other. Concrete relations are subdivided into circumstantial (*obstojatel'stvenno-xarakterizujuščie*) and something called '*sobstvenno-xarakterizujuščie*'. The circumstantial relations are fairly clear, being divided into spatial, temporal, causal, quantitative, purposive, replacive, sociative, etc. The other group is not defined except by examples, and its internal consistency escapes me entirely.

Something in the region of 450 subdivisions are labelled by a combination of the criteria just outlined. A further hundred or so subdivisions are brought in without any label, mainly in the area of strong, prepositionless, non-variative government. One might be excused for expecting the resulting subgroups to be homogeneous in some respect at least. But if one looks, for example, at the subgroups under the heading of strong, single, invariative, prepositionless, dative, passivisable, government, four of them look as follows:

- (1) sočuvstvovat' ("sympathise"), verit' ("believe"), aplodirovat' ("applaud"), pomogat' ("help"), služit' ("serve").
- (2) vredit' ("harm"), protivorečit' ("contradict"), grozit' ("threaten"), naskučit' ("bore").
- (3) upodobit'sja ("become similar"), podčinjat'sja ("obey"), prinadležat' ("belong"), naučit'sja ("learn").

- (4) sootvetstvovat' ("correspond"), godit'sja ("be of use"),  
ponravit'sja ("please").

This seems to me the precise opposite of showing linguistic phenomena as a system, and of precision in definitions - the avowed intentions of this grammar.

The treatment of cases at sentence level is largely unnecessary, even within the theory expounded in the grammar, with the possible exception of the instrumental of agent in passive sentences. Predicative nominatives might best be treated under the heading of concord, while predicative instrumentals have very close parallels in phrase-level syntax (if such a creature has to exist at all). (cf. S4.1. below for more discussion of predicative instrumentals, nominatives and datives).

It may be that the methodology exemplified in these three treatments of case is a fairly convenient way of setting out the data (although the cumbersome nature of the terminology in the New Academy Grammar shows that this is not the purpose there), but it is an approach calculated to throw the least possible light on the nature of case in general or individual cases in particular. For not only does one not learn very much about, say, the dative case, when it is treated in hundreds of different small groups, but also the possibility of making <sup>#</sup>generalizations about such things as the peculiarities of double object verbs or the different roles of weak and strong government is excluded when each of these things is dealt with only in relation to individual uses of cases. The alarming proliferation of subdivisions apparent from a comparison of the two Academy Grammars, and the persistence of groups with no apparent

semantic homogeneity, point to the lexicon as the inevitable logical end for this sort of approach to cases (this is advocated for the purposes of machine translation by Apresjan 1967). One may say that every case has just one meaning; one may say that every case has as many meanings as it has collocations; presumably one might find a principled method for establishing a number of meanings somewhere between these extremes, but Russian case theory contains no hint of any such method.

Consider, for example, the analyses of the Russian instrumental contained in Bernštejn 1958 and Mrazek 1964. Although many of the general headings for instrumental meanings are the same, none of their subdivisions are absolutely identical. Only Mrazek makes purely syntactic groups as well as semantic ones, although some of Bernštejn's groupings are partially syntactic. But the differences between these accounts seem small when one compares them with the analysis of the Russian instrumental made by Worth (1958). Worth uses only the notions of sentence constituents (including simple formal subcategories of verbs and nouns) and the transformational potential of sentences. Even with this simple framework, the number of possible subdivisions is enormous, and many of those that Worth does make are clearly not necessary - thus the reflexivity or otherwise of the verb is irrelevant in the sentences;

on vernulsja starikom "he came back an old man" and

on priexal starikom "he arrived an old man".

Worth uses his transformations fairly sensibly, but they are capable of infinite and irrelevant analysis of sentences, especially when, like Worth's, they are not meaning preserving. Thus even an

approach which is purely formal does not seem to be able to provide a principled basis for a choice of meanings for a case when these are more than one in number, and less than the maximum conditioned by cooccurrence relations.

### 1.1.3.

Non-Russian attempts to define Russian cases have been even less successful. Ebeling 1955 curiously imports some ideas from phonology into case-theory; thus he claims that the instrumental in on rabotal sud'ej "he worked as a judge" has no meaning as it cannot be replaced by other case forms in the same frame. He also uses the notion of minimal pairs in claiming that the na stol/na stole ("on/onto the table") distinction, which does not occur in absolute minimal pairs (the sentences on prygal na stol(e) "he jumped on (to) the table" have different constituent structures)<sup>6</sup> is less typical of the distinction between accusative and prepositional cases than is the pair v noč'/v noči, which constitute a minimal pair. In fact, the former opposition is incomparably more significant because of its much greater productivity, and although there are always differences in the contexts of the two forms, it is not at all necessary that the case form should be conditioned by the context, as opposed to both the form and the context being conditioned by the meaning. As for Ebeling's first point, the opposing claim made by Jakobson that the fundamental meaning of a case is found where it is the only possible case is much more likely. Ebeling's own system is a semi-algebraic one, and although he can force a number of sentences into it, it offers no great

insight into the structure of Russian. His conclusions therefore have little force;

"The vagueness of Jakobson's definitions is due to his objective - the collocation of the Russian cases into a symmetrical system..... We have not striven to obtain symmetry and therefore we were much freer. We regard the Russian case system as a system in decay; the Russian cases have mostly lost their meanings in exchange for syntactic functions. For that reason we do not expect a regular system." (p 222)

Sørensen's attempts at an analysis of the Russian case system (1949, 1957) add nothing of great note to the analysis of Russian cases. They are rather attempts to analyse the case system in terms of Hjelmslevian formalisms, respectively those of his "Categorie des cas" (1935-7) and a glossematic algebraic system, but in terms of data and primary analysis, they rest very heavily on Jakobson.

## 1.2.

This analysis of previous studies of case in Russian demonstrates that none of them provides a suitable starting point for an explicit and systematic investigation of the cases of Russian. The most original and explicit analyses of case-like elements have been provided in the last few years by exponents of various schools of thought in the transformationalist tradition in relation to English prepositions; these seem to be close enough to morphological cases in languages that have them to require similar methods

of analysis (cf. S1.3.1. below).

### 1.2.1.

Gruber 1965 assigns an important role to prepositions in what he calls 'pre-lexical structure' - a level deeper than deep structure which determines both semantic interpretation and syntactic form, but which contains no lexical items. Gruber is concerned less with the constraints on the generation of pre-lexical structures than with the process of lexical insertion of verbs. Consequently he is less than explicit about the assumptions he is making. Furthermore, many of his statements are suggestive, possibly even correct, but are not backed by any very compelling evidence. For instance, he makes an interesting claim about the negative status of ablative prepositions, which is supported only by impressionistic statements of semantic equivalence, but there is no syntactic evidence whatsoever.

Two features of Gruber's investigation appear to me to have special relevance and value in this study. The first is the decomposition of prepositions into more elementary (semantic) units, such as 'pure' location (perhaps misleadingly called AT by Gruber), motion, etc. Although Gruber does not make this clear at any point, it seems obvious that the two elements in AT ON (the pre-lexical structure of on) are elements of a totally different status, the first being a two-place relation, the second being a 'nominal' element of position. Gruber further fails to make clear why these two elements are juxtaposed, while an element such as 'Motional' is assimilated into the pre-lexical verb; this is pre-

sumably the influence of the surface. The other feature of special relevance is Gruber's process of 'incorporation', a process "designed to effect a mapping onto prelexical strings of lexical items." (p 14). A single lexical item may correspond to more than one juxtaposed lexical items; in this case, the less important pre-lexical item (the preposition in relation to a verb, for instance) is said to be incorporated in the verb; this process may either be optional (compare "The pencil pierced through the cushion" and "The pencil pierced the cushion", which are synonymous for Gruber) or obligatory ("John crossed the road" where across is incorporated). Gruber marks each individual lexical item for its behaviour with regard to incorporation, although he does not exclude the possibility that some regularity may be discovered which will render this unnecessary.

#### 1.2.2.

It is interesting to compare this with the very different proposal made by Postal (1971), and apparently now characteristic of 'generative semantic' approaches to both prepositions and cases (cf. Ross 1967, Andrews 1971). Although Postal does not propose any criteria for choosing between any two prepositions, he places prepositions as a whole within a system of transformations which is as carefully worked-out as any in the literature. The basic thesis of this approach is that prepositions are inserted transformationally, and then deleted in certain contexts, such as in subject position. The advantages which this approach has is that it can give highly general solutions to such processes as English

case-marking transformations, which Postal attributes simply to the presence of prepositions before an NP, ordering it after subject-preposition deletion. Another apparent advantage is that it gives NP status to prepositional phrases which corresponds to their syntactic behaviour. Postal says little about the criteria for insertion of particular prepositions; he says: "The actual shape of the preposition associated with a particular NP is determined by many factors in ways I do not pretend to understand fully. Obviously, the lexical head of the NP, its logical relation to verbal elements, lexical properties of the verbal head, and other factors play a role." (Postal 1971 p 206). This is unsatisfactory not only because of its vagueness, but also because the references to lexical properties of the noun and the verb seem to be tantamount to claiming that there are virtually no generalisations concerning prepositions, but that they are all idiosyncratically connected with particular verbs and nouns. Of course with preposition insertion taking place as a transformation, there seems little likelihood that this grammar can assign semantic properties to prepositions. However, even supposing that Postal could find adequate criteria for introducing individual prepositions, which is itself unlikely, there remains the problem of dealing with constructions which take different prepositions in different syntactic environments, e.g. "to pierce through the screen" and "the piercing of the screen" (Gruber's example). To be fair, however, the treatment of prepositions is a comparatively minor point in Postal's monograph, and will no doubt be improved.



## 1.2.3.

Fillmore's approach (1966, 1968, 1969a) involves underlying elements called 'cases', many of which will be superficially realised as prepositions. This has the advantage over Gruber's approach that it does not require each preposition to have a corresponding underlying element, and is more explicit about the status of underlying relational elements. On the other hand, the presence of these underlying elements makes preposition-introduction a much more feasible operation than in Postal's proposal. Fillmore's contention is that these cases are elementary semantic relations, and that a small number of these are sufficient to describe nominal roles and to subcategorise verbs.

"The case notions comprise a set of universal, presumably innate, concepts which identify certain types of judgements human beings are capable of making about the events that are going on around them". (1968 p 24).

A curious feature of Fillmore's repertoire of cases is that some of them are differentiated solely by criteria which do not appear to be strictly casual. For instance, the agentive/instrumental and dative/locative oppositions rest primarily on the animate/inanimate distinction. Further coincidences in relation to these cases not remarked on by Fillmore, are that verbs specified with an Instrumental must also be specified with an Agentive, and that Dative and Locative are separately stated to control have-insertion in English. This would seem to suggest that the cases

posited are not as elementary as Fillmore suggests.

A further possibly dubious feature of Fillmore's grammar is its potential implications for the status of superficial cases. Fillmore allows for a fairly large number of deep cases; "Agentive, Instrumental, Objective, Factitive, Locative, Benefactive, and perhaps several others." (1968 p 32). Then in dealing with the relationship between deep and surface cases, he states:

"Two deep cases may be represented in the same way in the surface structure, as when D and O direct objects are both represented with the 'accusative' case in many languages (where the determining factor may be the occurrence immediately after the verb at some stage of derivation). ..... The rules for English prepositions may look something like this: the A preposition is by: the I preposition is by if there is no A, otherwise it is with." (1968 p 32).

From this we see that Fillmore places no constraints on the correspondence of deep and surface elements in this field. It might be difficult to conceive of a system in which individual deep items were not realised on the surface by varying superficial elements, but the converse - to claim that surface elements are realizations of several different underlying elements, - is not at all obvious, and should be justified in detail by anyone holding it. Fillmore places far too few constraints on the deep cases in general, and there is nothing in his system to prevent the creation of several more cases, which might defy generalizations which one could make about all other cases.

For instance, in its present form, Fillmore's theory allows any case to be advanced as subject, and therefore to be put in the nominative. But there is no principled objection to the creation of another case (a predicative case might sound a fairly plausible one) which was not susceptible to subjectivisation, and which would therefore need to be explicitly excluded from the rule allowing cases to be advanced as subjects.

#### 1.2.4.

A rather different, and more heavily constrained system of underlying cases is proposed in Anderson 1971a, where "the now discredited localist view" (Fillmore 1968 p 9) of cases is resurrected in the context of deep grammar. The relations expressed by these cases are very much more abstract than those of Fillmore, covering both concrete and abstract grammatical relations. The first step in the creation of this system is to posit two pairs of cases - the local (locative-ablative) and the non-local (nominative-ergative). It is claimed that these abstract relations exhaust the list of possible roles - i.e. Fillmore's "and possibly several others" is dispensed with. It is also recognised that these cases are probably not all atomic concepts - a further departure from Fillmore's implicit assumptions. The evidence for this is of varying sorts; configurations of cases may be the same - thus transitivity and direction (whose similarity in many languages was noted by Allen 1964) each have 3 possible configuration, respectively

nom.    nom - erg.  $\begin{bmatrix} \text{nom} \\ \text{erg} \end{bmatrix}$  and loc.    loc - abl and  $\begin{bmatrix} \text{loc} \\ \text{abl} \end{bmatrix}$  In other words,

transitivity is not simply a binary distinction of + and -, but

has reflexivity as a further possibility: similarly, direction is not simply 'to' and 'from', but also 'along'. Anderson's claim is that these systems are isomorphic. Then there are morphological parallels between ergative and ablative (e.g. Rus. ot, Lat. a cf. §3.1. below), as well as the semantic parallel, with transitivity as action directed onto an object. Furthermore, ergative does not cooccur with the local cases except in causative constructions. If these are interpreted as involving superordinate causative nodes, which is quite plausible in itself, erg. and abl. become mutually exclusive in a simple predication. The evidence which Anderson brings forward for the identification of loc. and nom. is very weak, especially as they are not in complementary distribution. One possible piece of evidence for their identity is in the pro-verb do something to someone (Rus. delat' čto komu) where the locative corresponds to what is generally accusative in the verbs of which this is the pro-verb.

This leads to two alternative hypotheses; either we have a three-case system, with ergative and ablative fused into one case, and a  $+/-/0$  specification according to a Hjelmslevian sort of algebraic system, or the cases may be split into two oppositions -  $+/-$  local and  $+/-$  negative (cf. Gruber's equation of abl. with neg. loc.) resulting in four cases. The latter is the stronger proposal, but as we have seen, the evidence for it is much weaker. However, whichever of these proposals is adopted, it is clear that Anderson's proposal is superior, *ceteris paribus*, to that of Fillmore, in that the number of cases is strictly limited, and yet,

while being more abstract than Fillmore's cases, more likely to correspond to superficial realizations, which, at least historically,<sup>7</sup> are frequently based on local concepts. Thus, although it is difficult to be definitive about the relative merits of various proposals which are still in a state of development, Anderson's work seems to me the most likely to be fruitful, at least insofar as its treatment of the repertoire of cases is concerned.

### 1.3.

Although ready to take over wholesale the repertoire of cases proposed by Anderson, I feel that their theoretical status is rather obscure in the system he proposes. He notes (1971b) that a dependency grammar with cases in it allows one to reduce the number of categories required in the grammar to two - noun and verb, relating these by means of cases. This combines the economy of dependency grammar in not needing non-terminal categories with the Postal-Lakoff proposal that verb and adjective are categorially identical. But in the framework within which he makes this proposal, the cases are already fully determined by the semantic specification of the verb - i.e. the elements relating verbs and nouns are free as regards the choice of nouns to go with them, but are themselves fully determined by the choice of verb. Furthermore, the closer the verb approaches the status of an atomic semantic element, the closer it is in meaning to a case; for instance, the verb kill presupposes an agent (ergative case), but it cannot be said that an agent presupposes a killing; however, the verb do also

presupposes an agent and it is equally true that an agent presupposes that something is done. With these doubts in mind, it should be useful to consider in rather more detail what the status of 'case' can usefully be in deep grammar.

Even an examination of the superficial cases should be enough to convince one that they are not parallel in most respects to the other superficial categories of the noun - number, gender, animacy, etc. Gender, for instance, is normally associated uniquely with the lexical item; the noun stol ("table") is masculine in Russian, and the noun palka ("stick") is feminine. The very fact that most nouns have a paradigm of cases is proof that a single case is not uniquely associated with any particular nouns or class of nouns. Number and animacy, and sometimes also gender, are related to the referent of the noun; devuški ("girls") is feminine, animate and plural because its referent also has these qualities. A parallel hypothesis with case might be that referents which were active should go in some case (say the instrumental as the case of agent); thus any active referent would go in the instrumental. Of course, any noun can occur in any case (with the exception of morphological freaks like mečta ("dream") which has no genitive plural) and the hypothesis is therefore wrong. Case belongs with the noun only insofar as the noun is included in a grammatical structure, and generalisations about cases can be made only in relation to classes of configurations of syntactic or semantic elements. Thus, for instance, Peškovskij claims that "the presence of an adverb or of an oblique case of a noun ... serves as a mark of an elliptical sentence." (1956 p 378). Only the nominative, the least marked

case, occurs on its own without being felt as elliptic.

### 1.3.1.

It is commonplace in the linguistic literature to find reference to the common linguistic functions of cases and prepositions:

"Il paraît en effet que les prépositions constituent un système dont les dimensions sont les mêmes que celles du système casuel, et qu'il s'agit ici d'une catégorie double qui se manifeste à la fois dans le système grammatical et dans le système lexicologique"

(Hjelmslev 1935 p 107)

"Whether the term 'case' should be extended beyond its traditional application, to include prepositions as well as inflexional variation, is also a question of little importance. The difference between inflexional variation and the use of prepositions is a difference in the 'surface' structure of language." (Lyons 1968 p 303)

Similar points of view are put forward by Kurylowicz (1949), Benveniste (1949), Fillmore (1968) and many others. However, it is also not uncommon to find reference to the common linguistic functions of prepositions and verbs;

"Au moyen age .... on n'avait pas vu que cette catégorie (relation D.K.) est présupposé par le concept de liaison inherent aux conjonctions et aux prépositions et à la copule inhérente au verbe" (Brøndal 1948 p 243)

"Ainsi, dans les langues indo-européennes tout rapport grammatical est verbal. La grammaire tout entière est dans

le verbe; inversement, tout verbe exprime par lui-même ou contient de la grammaire, car il est un copule ou en contient un. (p 106) ... Malgré sa forte lexicalisation, le verbe transitif est toujours réductible (logiquement) à avoir ou être à." (p 106 Bally 1944)

A similar claim within the theory of generative grammar is to be found in Becker and Arms 1969. The first of these claims - the identity at a deep level of the categories of case and prepositions does not seem to me to be in much doubt. The second claim - which amounts to saying that prepositions are verbal in nature, or vice-versa - is not obviously true, but I know of no evidence to say that it is untrue. It also seems a little mystifying that nobody has to my knowledge claimed that cases and verbs are similar in function; perhaps this could be ascribed to the influence of superficial realization, as well as to the fact that prepositions tend to be more concrete than cases (Lyons 1968 p 304). But with definitions like: "Est cas une catégorie qui exprime une relation entre deux objets." (Hjelmslev 1935 p 96), the similarity between verbal and casual meaning is brought out fairly forcefully. If the cases we consider are 'deep cases', then this similarity appears to be even more plausible.

### 1.3.2.

If cases may be described as underlying verbs, then the question naturally arises as to what relation they bear to superficial verbs. I think that Fillmore has shown that this is a fairly close relation, as he has characterised a large number of verbs by



associating them with the case frames compatible with them (see, e.g., Fillmore 1969b). To take a simple example, the feature stative is used in two senses in the literature; in one sense (Lakoff 1966) it corresponds broadly to the absence of ergative (agentive) in the clause, while in its narrower sense (Miller 1970) it corresponds to the presence of a locative as subject of the verb. What is claimed here, in distinction to what is said in the works of Fillmore and Anderson, is that these cases are not merely associated with the verb in some comparatively loose way, but are actually inherent in the verb, themselves forming its structure. Thus instead of saying that a verb such as put is associated with the frame O + L + A (or nom-loc-erg), we might analyse "X put Y on Z" as (X CAUSE (COME ABOUT (Y ON Z))), (cf. S1.4. for an analysis of these elements) where it would be possible to stop talking about 'verbs' or 'cases', and talk instead about underlying relational elements, which may be superficially realized as verbs, or cases, or both. It is also noteworthy that the three verbs which are generally recognised as pro-verbs - do, be and have - bear an approximate resemblance to respectively ergative, nominative and locative. For instance, it is a diagnostic of stative verbs (in Lakoff 1966) that they do not occur in environments of the type;

What he did was + V, e.g.

(5) \*What he did was know the answer.

Stative verbs are, in case-grammar terms, those which are not associated with ergative/agentive (Anderson 1971a p 41). This provides some evidence for the analysis of do as being closely

associated with ergative case. Have is fairly straightforwardly associated with the locative, both in its possessive use, and in its use in sentences of the type;

(6) My brother had some books given to him.

(7) The garden has fairies in it.

These sentences are associated with superficially simpler sentences, in which the noun that is subject in the 'have' - sentences is in a locative phrase;

(8) Some books were given to my brother.

(9) There are fairies in the garden.

Be is less straightforwardly associated with nom, but as I am going on to claim (S1.4.2.) that nom does not exist as a separate case, this is not too worrying.

It is important to note from the start some of the implications of this approach, which will restrict any model representing it; if it is true that each verb is associated with one or more cases - and this is a very likely assumption - then the possible repertoire of underlying verbs will not exceed the number of cases. This is because any verb which is associated with a case not identical to itself will inevitably be internally structured, with a structure containing that case. Consequently, it is an extremely restrictive theory, with only three or four underlying relational elements if Anderson's theory is adopted. If therefore, it proves to be consistent with the facts of language, this restrictiveness will be very much in its favour.<sup>8</sup> It is the purpose of this study to discover the limits of this theory by applying it to the Russian case system.

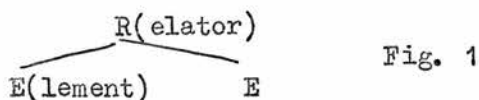
## 1.4.1.

What sort of base structures would be produced by such a proposal? It presupposes that the basic categorial distinction is that of relational and non-relational elements; thus nouns, verbs and adjectives, insofar as they are not purely relational, are not categorially differentiated, and are presumably somewhat similar to Bach's class of 'contentives' (1968). Structures are thus composed of relational elements linking non-relational elements in trees of some sort. In some of his later work, Anderson does actually seem to be moving towards this sort of approach; thus, for instance, he says; "I think indeed that it can be argued that the 'lexical' elements N and V are always 'linked' by some functional element." (Anderson ms. 1971 p 38). Thus although he here preserves categorial distinctions, Anderson is making a further distinction of lexical and functional elements which is very similar to that made here.

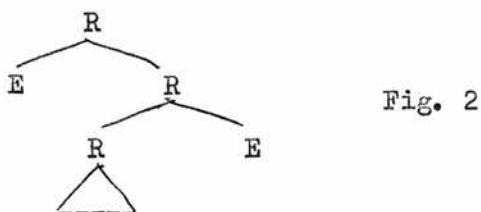
I shall assume without much argument that such a proposal will be better represented in dependency trees than in constituent structure trees. Whatever the differences in formal properties between dependency and constituent structures (for argument see Robinson 1970 and references there),<sup>9</sup> it seems intuitively more natural to have dependency trees in this proposal, where the relational elements are manifestly relational,<sup>10</sup> than constituency trees, where the relational elements appear in the trees in a position not visibly different from non-relational elements. Dependency trees also appear to render redundant the considerations brought forward in

McCawley 1970 about underlying word order.<sup>11</sup>

The general structure of the trees under this proposal will consequently be;



Being recursive, this will give trees of the general structure;



Binary subdivision as is exemplified in the diagram appears to me to be justified on the grounds that no relational element with more than two places would possibly be described as elementary. In fact, there are so few relational elements envisaged for this model that a simple list of them should be enough to convince anyone that they are only two-place.

#### 1.4.2.

I have already indicated my preference for the system of deep cases proposed by Anderson over that proposed by Fillmore. I shall start off by operating on the three-case system proposed by Anderson, because while he has shown that ablative and ergative are in complementary distribution (i.e. never cooccur in a simple predication), this is manifestly not the case with locative and nominative. However, there will be plenty of opportunity to change this decision, for as the system of cases is the object of this study, each case will have to be justified fairly thoroughly if it is to be accepted as a base element.

Another reason why Anderson's nominative case should not merely be seen as a locative emerges as a curious result of the choice of cases as verbal elements. Both Anderson and Fillmore posit cases which are obligatorily present in all simple predications, and which are semantically neutral. Therefore given a structure of the type shown in Fig. 1, it is clear that one of the elements in it must be neutral - i.e. the equivalent to the Fillmore/Anderson O/nom. We shall decide arbitrarily that the element which would be marked by a positive case in a Fillmore/Anderson type grammar is the one on the left of the predication. Thus the sentence

(10) "John is in the park" will be given the structure;



Furthermore, we may reasonably call this left-hand element the 'subject' of the predication; this can be justified on the grounds that what Chomsky might call the 'logical subject' (1965), and what many Russian linguists would call 'sub,jekt' (e.g. Mel'čuk & Xolodovic 1970, who almost have a case grammar) is often a noun from this position, although the reverse does not hold. In other words, when there is a sentence with a number of elements in it, one of the elements which we have called 'subject' of a relation will be seen as the 'logical subject' of the sentence - e.g. with locative in (11), and ergative in (12);

(11) a. John likes chocolate biscuits.

b. His wedding was always remembered by John.

(12) a. John hit Mary.

b. The actor was hit by a rotten tomato.

Curiously enough this does not apply to simple locative sentences such as (10) above. And in general, due to the hazy nature of the notion 'logical subject',<sup>13</sup> the use of the term here should be seen as arbitrary, merely for purposes of identification of one member of a relation.

What then of examples adduced in favour of nom-loc identity like "do something to someone"? (cf. S1.2.4.) Here it is necessary to recognise that a revision of Anderson's model as extensive as the one proposed here will involve a radical reconsideration of the structure of many sentences. Two claims in particular are made / this proposal; first, that it is impossible to have a simple predication in which there are two nominative elements, as there is no way of formalising that notion here.<sup>14</sup> Secondly, that sentences with three lexical elements (e.g. John hit Bill) will be a realization of a base structure with at least three underlying non-relational elements.<sup>15</sup> It is therefore not at all clear that in the hierarchy of predications which will result as an inevitable consequence of more than two elements being related by two-place relators, the 'objective' element will turn out to be the neutral element represented by Anderson's nominative. This is a matter for further analysis at a later stage.

#### 1.4.3.

The concept of the intransitive verb, as this applies to surface structure, is rendered more or less redundant at the deep level by the sort of abstract relations that this model involves. However, certain verbs which a 'generative semantic' grammar might

use and call intransitive must be posited; these correspond approximately to what Seuren has called 'operators' (1969). It is not at all clear to me whether quantifiers should be included in this class, but at this stage of development, it is sufficient to give two examples of this category.

The first is negation, being represented as:

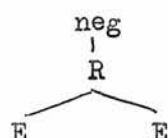


Fig. 4

Although I shall assume that all negation is sentential, and that negation of elements is reducible to the sort of proposal made by Bach (1968 p 97), I shall abbreviate where necessary as:

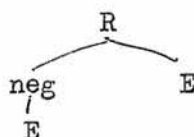


Fig. 5

This is to avoid going into the irrelevant (here!) problem of relative clauses. Thus, for example, the representation of a sentence like:

(13) He didn't come

will simply be the structure of

(14) He came

dominated by a negative element:

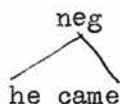


Fig. 6

(cf. Pađučeva (1969, 1970) for further analysis along these lines.)

For the second 'intransitive verb', consider the Russian verb stat', which represents inchoativity - the beginning of a state or action; it also has a positional meaning of "stand up". But not

all states can be associated with this verb:

- (15) On stal nervnym. "He became nervous"
- (16) On stal čitat'. "He began to read"
- (17) On stal pisatelem. "He became a writer"
- (18) On stal na nogi. "He stood up (on his feet)"
- (19) \*On stal v komnatu. "He became into the room"

Verbs of motion are used instead of stat' with positional states:

- (20) On vošel v komnatu. "He went into the room"

The verb načat' is of more limited range than stat', cooccurring only with verbs denoting actions:

- (21) On načal čitat'. "He began to read"
- (22) \*On načal nervnym. "He began nervous"
- (23) \*On načal znat'. "He began to know"
- (24) \*On načal v komnatu. "He began into the room"

It seems a not unreasonable hypothesis to posit a single underlying source for these elements; further evidence is provided by the use of verbs of motion to denote inchoativity of non-positional states and actions. (Lakoff 1970 S4.15 also envisages this possibility; cf. also Binnick 1968 and Miller 1970)

- (25) Ivan prišel v jarost'<sup>15</sup> "Ivan came into fury"
- (26) On pošel pljasat' "He went to dance"
- (27) On pristupil k čteniju. "He proceeded to reading"

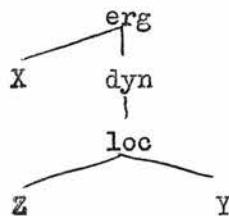
(This sentence is synonymous with (16)).

This element I shall call dyn(amic).

We have now tentatively established four elements (i.e. dyn, erg, loc & nom) which, linking together more concrete elements, may be capable of representing a large part of the semantic structure



of Russian. The structures which are possible will not embody every possible configuration of these elements; the element dyn, for instance, cannot be directly dominated by loc, while an erg governing a loc predication must have an intercalated dyn. The exemplificatory sentence produced in S1.3.2. "X put Y on Z" can now be given the structure:

Fig. 7<sup>17</sup>

It might at this stage be appropriate to consider what difference, if any, would be made if one were to decide to treat, say, negation and 'dyn' as features on other elements, as opposed to being elements in their own right. The first question to be asked is whether the choice of features would make any difference to the generative power of the grammar. Although I do not know enough to be able to prove this, it seems to me that the addition of features, or at least those of a certain sort, adds a great deal of power to the grammar, and is therefore undesirable. In an 'Aspects'-type model, features are used on both verbs and nouns as cumulative restrictions on the extension of the lexical item. They therefore fulfil a function which is not duplicated by any other procedure in the grammar, and they are relatively homogeneous. However, if one looks at the type of features used in Anderson 1971a, it is clear that these include a certain number of Aspects-type features, but also a large number of features which fulfil completely different functions; thus +stative, is a normal feature restricting the

extension of the verb, while a lot of features, such as +abl-oblique, are designed to determine the position of nouns in surface structure, rather than to add semantic information to the verb or the sentence. Studies are not infrequently found where the use of features is even more arbitrary than this (e.g. Dougherty 1970),<sup>18</sup> and where the sole aim appears to be to engineer the right result in the final string. It would therefore appear that it might be a useful constraint on grammars to avoid the use of features, or at very least, to avoid the use of features which do not fulfil the simple subclassificatory function they are given in 'Aspects'.

Another consideration which arises when base structures are semantic entities is that it is reasonable to expect parallels and differences between various types of semantic connexion to be captured in the various types of formal devices for expressing relationships. It must therefore be to some extent an empirical question whether there is a relation characteristic of features as opposed to other linking devices; at least with respect to superficial verbs, I would claim that this is a question which should be answered in the negative; if one can discard such notions as stativity in favour of decomposing superficial verbs into more atomic entities, and if rules for the positioning of nouns can be established without features on verbs (for one way of doing this see S1.4.4.; for another, see Anderson 1972), there is no reason for proposing features on verbs. Whether non-relational elements will be associated with such features is a question I shall not discuss.

## 1.4.4.

One of the topics which will remain on the periphery of this study, but which is clearly of tremendous importance in any linguistic theory, is the way in which the string of elements which constitutes a sentence is chosen on the way 'up' from the base structure - i.e. how many units are chosen to represent a given structure, and which syntactic and linear position they are assigned. This, indeed, does not seem to constitute a single question at all, and yet it seems impossible to isolate a set of criteria, say for the establishment of linear order, which will not be relevant in some language in establishing subjects and objects. It is now generally accepted that the choice of word order is at least partially connected with the status of individual elements in relation to the preceding discourse (Halliday 1967), and this is especially so in languages such as Russian, which have relatively fewer constraints imposed on word order by grammar than do languages like English (Adamec 1966, Bivon 1971). But this is not to say that the grammar can be treated independently of communicative considerations. For instance, in some constructions, elements which are preposed in accordance with functional sentence perspective are put into the nominative case (Popov 1964). This might suggest that the choice of nominative is closely connected with thematic structure, but there are other criteria which have been put forward as determinants of the subject in various languages; Dubois 1967, for instance, mentions the necessity of maintaining a single interpretation as a determinant of the passive (*Le gouvernement a hautement apprécié ses mérites* - ambiguous. *Ses mérites ont été*

hautement apprécies par le gouvernement - unambiguous. The ambiguity lies in the fact that the pronoun in the active sentence might refer either to the subject or to something else, while in the passive sentence, the pronoun refers to some person or thing not mentioned in the sentence.), the tendency to establish a canonical ordering animate-inanimate, and also singular-plural. Similar principles are expressed for English by Jespersen 1933.

How then can we work proposals like these into the model? Given a simple predication with a relator and two related elements, one of these will have to be chosen as the element which will leave the predication; I propose that this will depend primarily on the hierarchy animate - concrete - abstract, where the highest element will leave the predication. This can be justified on two grounds; in any simple predication an animate member will tend to be most prominent, while only abstract elements will be absorbed into the structure as parts of superficial verbs (the first point needs to be modified in the case of the curious construction of possessives). For instance simple concrete locatives will obligatorily have an animate superficial subject if one of the members is animate:

(28) Ivan v škafu. "Ivan is in the cupboard"

(29) \*Škaf vmeščaet Ivana "The cupboard contains Ivan"

(30) Škaf vmeščaet knigi. "The cupboard contains the books"

The second point can be simply illustrated; given the structure:

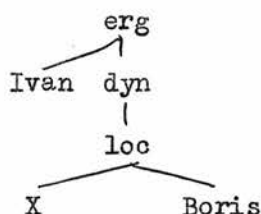


Fig. 8

X may be replaced by either komnata (room) or razdraženie (annoyance). Among the sentences which may arise are:

(31) Ivan vvel Borisa v komnatu. "I. brought B. into the  
room"

(32) Ivan privel Borisa v razdraženie. "I. brought B. into  
annoyance"

(33) Ivan razdražil Borisa. "I. annoyed B."

But there is no word \*vkomnatet meaning 'to bring into a room', and the theory predicts that there cannot be such a word given the conditions on types of nouns. In this connexion, the type of theory put forward by Lyons (1966) characterising nouns as 'thing'-words can usefully be incorporated into this general framework.

The mechanism for taking an element out of a simple predication will be the raising transformation familiar in the literature of generative semantics (e.g. McCawley 1970, De Rijk 1968, Lakoff 1971). Its effect will be to raise the element from the node on which it is dependent to the next higher node. There have been various proposals as to what to do in the case of subjects; for instance, Anderson forthcoming contains a hierarchy of empty nodes, which serve, among other things, to determine the subject of the superficial sentence. However, if the rule of raising is applied to an element which is already at the top node of a tree, it will lose a node to become dependent on, and will itself become a dominating element. We will get:

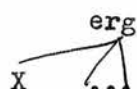


Fig. 9

becoming

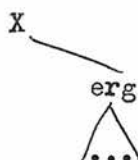


Fig. 10

Intuitively, this seems a rather pleasing suggestion, as it

captures the notion of the nominative case as expressing an independent concept (Jakobson 1936). It also brings out clearly the fact that, while the verb is the dominant category at a deep level, the subject dominates the verb at a more superficial level when the processes of concord are operative.

Further discussion of the role of communicative and semantic elements in determining the order and segmentation of superficial elements would be otiose in the absence of a detailed study of the problem on the basis of applying a native speaker's intuition to an enormous number of examples. This I do not intend to do here, so I shall assume that the structures generated by the grammar will be constrained only in the crude way given above.

#### 1.4.5.1.

Consider the following two quotations:

"La langue dispose d'un nombre restreint de cas pour exprimer des relations très diverses, ce qui oblige le grammairien, lorsqu'il traite les cas comme l'expression de ces relations, à reconnaître des fonctions plus ou moins nombreuses / un même cas." (Perrot 1966 p 218)

"Un cas comme une forme linguistique en general ne signifie pas plusieurs choses différentes; il signifie une seule chose, il porte une seule notion abstraite dont on peut déduire les emplois concrets." (Hjelmslev 1935 p 85)

Common sense, and the majority of linguists who are explicit about this question, would at first seem to be on the side of Perrot's argument. But this is a position which is unlikely to give a solution with a large amount of evidence in favour of it, as a justification would really demand that it form part of a complete grammar of a language. Thus Hjelmslev's position is more desirable from this point of view, as counterevidence is possible, given that one cannot add a few ad hoc meanings to patch up the analysis. The ridiculous lengths to which subdivision of case meanings can go has already been seen in the Russian Academy Grammars (S1.1.2.). It is perhaps worthwhile noting, however, that this does not imply that each superficial case corresponds uniquely to a single deep semantic element. What it does mean is that each case is defined in terms of a single characteristic, whether this be an underlying element, a configuration, or a transformation. To the extent to which this study fails to do this, it is to be regarded as not having gone deep enough into the relevant phenomena. In this respect, I am following the working principle of Hjelmslev 1928: "Une fois constatée une catégorie formelle, il faut toujours lui présumer un fond significatif." (p 169). Further objections to this position have been made from a transformational viewpoint in Comrie 1971:

"Where attempts are made to characterise 'indirect object' semantically - to include not only the objects of verbs of saying, ordering, compelling, but also of giving, perhaps of harming and helping - this involves a hopeless confusion of semantic and syntactic criteria

(given that for each of these verb-classes there is some language where the appropriate noun phrase stands in the dative case)." (p 58-9)

Although I have not claimed that the dative can be analysed as the same in all languages, this quote may be taken as a direct attack on a position very similar to that taken in this thesis. The confusion, it seems, is not all on the one side; a semantic characterisation of the dative does not involve saying that all datives mean the same, but rather that there is some area of meaning common to all of them. In the absence of a complete semantic theory, it is difficult to see how such a position could be refuted (although of course, any individual example of it could). Perhaps the most important point is that the question of whether dative case (or indirect object) is capable of a semantic characterisation is purely a matter of empirical fact; the only way to establish this one way or the other is to take the strongest hypothesis and put it in a form in which a falsification is theoretically possible. Choosing a weaker hypothesis will not establish anything.

#### 1.4.5.2.

It should be evident by now that this hypothesis is in spirit a "generative semantic" one. It is very easy to get too simple-minded in such a debate in claiming that one has 'disproved' the opposite point of view, or in using small areas of language to claim empirical advantages for one's own favourite approach. However, I am of the opinion that a certain measure of success in establishing unified definitions for Russian cases on the basis of



a model such as that set out above would be evidence in favour of a generative semantic model insofar as no other attempt to do the same thing has met with any great degree of success. On the other hand, rejection of this model would not be any argument in favour of anything, as the 'standard' model of generative semantics (i.e. the Ross-Lakoff theory), which uses case-introduction transformations, does not claim that superficial cases are unitary elements (not explicitly, at least). The basis for hope that Russian cases will turn out to be amenable to an analysis of this sort is the fact that government of cases in Russian is manifestly not arbitrary - verbs of similar semantic specifications tend to govern the same case. This might possibly be explained by some vague notion of analogy, but this would not be a very helpful explanation. The idea that there is an inherent connexion between the semantics of the verb and the governed case is a much more attractive hypothesis, which may, however, turn out in the end to be false.

It is interesting, however, that the elements which have emerged from various generative-semantic analyses have been very like the cases and other elements posited above - ergative (=causative), dyn (=inchoative), neg and loc. For instance, Lakoff 1970, which was written in 1965 and is not very divergent from the 'Aspects' model, analysed the sentence:

(34) John deactivated the bomb                      as

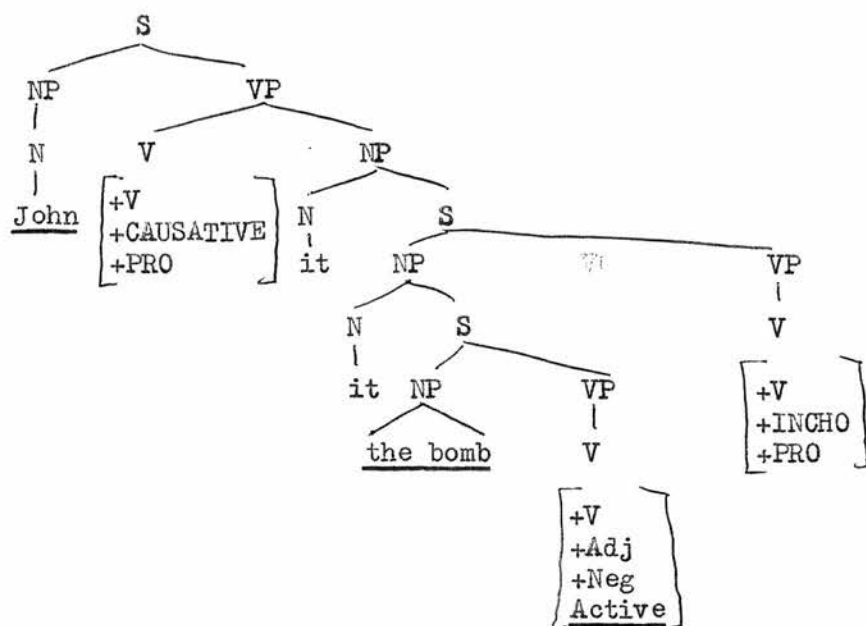


Fig. 11

Similarly, Postal (after McCawley) has analysed sentences of the type 'X killed Y' as:

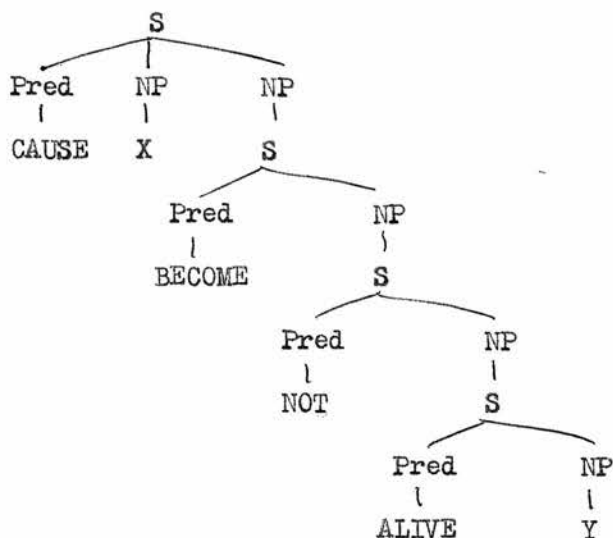


Fig. 12

Postal 1970 p 233.

The interest in these particular elements is the frequency with which they recur; other elements occur (e.g. strike and similar in the same Postal article), but only three are really frequent. The other element I have posited (locative) is not frequent as a verb, but this may be more due to entrenched prejudice against

treating 'cases' as 'verbs' - certainly with superordinate expressions of time and place, a locative predicator would seem fairly natural. What makes the claims of this theory more radical than those of the 'standard' generative semantic theory is that I claim that only these four predicators are necessary. This is not so radical as it may seem at first sight, but is more like the rejection of a system of 'distinguishers' distinct from 'semantic markers' in the old Katz-Fodor type semantic theory (e.g. Bierwisch 1969). It is interesting that when generative semantics is viewed in this manner, it really does not differ in its standard form from case grammar except in the shape of its trees.

#### 1.4.5.3.

A problem arises in relation to the justification of the analyses of cases; obviously they will be acceptable only if the analysis is compatible with all individual uses of the cases.<sup>19</sup> Furthermore, the analyses of verbs into elementary elements must be checked with reference to the meaning relations holding between the verbs to see if they are consistent. Obviously, however, it would be an impracticable task to analyse all the (classes of) verbs in the Russian language, even if I could be sure of doing it for each individual verb. It must therefore be expected that a certain amount of indeterminacy will arise in the analysis of cases, and it will have to be accepted that any particular piece of the analysis can stand for the time being simply in the absence of a clear piece of data to the contrary.

## 1.4.5.4.

At least two areas of language which should be relevant to the analysis of case will be left out of consideration here. Firstly, the area of temporal expression, which appears to be more idiomatic than spatial or abstract expressions. Secondly, the use of (prepositions and) cases in the construction of the complex sentence. It is clear that coordination and subordination have a lot to do with case expressions (Miller 1971), but the topic of this study is broad enough already without having the study of the complex sentence added to it.

## 1.4.5.5.

I feel that it is necessary to say something about the data used; much of this is from the linguistic literature, some from newspapers, and some from a native informant. While not wishing to make a virtue of necessity, I think that it is at least possible to condone the use of such a variety of sources because of the nature of this study. It is not an attempt to write a grammar of Russian, or even a part of Russian, but basically an attempt to discover the possible structures underlying Russian cases. Thus although individual constructions may be limited to one variety of language, I know of no linguist who would claim that this is evidence of a difference in underlying-semantic structure between this variety and others. Any construction, in any variety of the modern Russian literary language, is potentially capable of throwing light on the underlying structure of the language as a whole.

## Footnotes to chapter 1.

- 1 Hjelmslev and Jakobson's theories are identical at least in this respect; for claims that they are in fact notational variants, cf. Vogt 1949, Sørensen 1949.
- 2 Jakobson also says of the genitive: "Das <sup>1</sup>nomen, von dem der G abhängt, schränkt den Umgang des Genitivgegenstandes direkt ein." (Jakobson 1936 p 65). Exactly the same objections apply to this definition - it may be true, but it is also true of every other combination of words, and is therefore uninteresting as a definition. UC
- 3 I find it unlikely that either of these approaches could provide a really satisfactory account of cases - Šaumjan because his theory is far too powerful generally, Apresjan because cases would be specified in the lexical entry for verbs, leading to enormous redundancy and little generalisation.
- 4 I exclude from consideration the purely morphological analyses of case which attempt to define the repertoire of cases and nothing else - e.g. Gladkij 1969, Deširjeva 1970. e
- 5 Raspopov (1970) says of parataxis: "What is in fact meant by this is examples involving subordination of uninflected words - adverbs, gerunds, infinitives" (p 46).
- 6 The simple locative would (in an 'Aspects'-type theory) have the structure:  $S(NP^{(on)}_{PREDP}(VP(prygal)_{LOCP}(na stole)))$  while the motional sentence would have the structure:

S(NP(on)PREDP(VP(V(prygal)LOCP(na stol))))

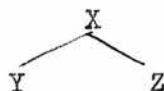
7 The 'at least' here is meant to be taken literally. The weakest hypothesis one can realistically make about the use of local prepositions in non-local expressions is that they are historically derived from local expressions. Of course, given a model like Anderson's, a claim is being made that these correspondences are not just historical, but are inherent in the synchronic state of the language.

8 A comment from Chomsky might be relevant here:

"For example, such a device, could be used to establish, say, that all verbs are derived from underlying prepositions. If one wishes to pursue this line of reasoning, he might begin with the traditional view that all verbs contain the copula, then arguing that "John visited England" is of the same form as "John is in England" (i.e. \*John is visit England) where visit is a preposition of the category in that obligatorily transforms to a verb incorporating the copula. Thus we are left with only one 'relational' category, prepositions. To rule out such absurdities, it is necessary to exclude the devices that permit them to be formulated or to assign a high cost to the use of such devices." (1970 p 218)

9 One of the advantages that dependency grammar has over constituent structure grammar is that it has a natural representation for the head of a construction, a concept which has

been found to be of value in much modern grammatical work (cf. Robinson 1970). This is because dependency grammar does not contain non-terminal categories (NP, VP etc.) but places one major terminal category in dependence on another; thus a constituent structure

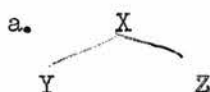


will be a dependency structure

|   |    |   |
|---|----|---|
| Y | or | Z |
|   |    |   |
| Z |    | Y |

A related advantage over constituent structure is noted by Lyons (1968 S7.6.8.); constituent structure grammars do not specify that a consistent correspondence holds between phrase-level constituents and their sub-constituents; thus, if VP and NP were interchanged in a set of PS rules, the two sets of rules would still be strongly equivalent. Dependency grammar does not face this problem, because phrase-level constituents are defined (if they need to be defined at all) in terms of their head - i.e. a noun phrase is a string dominated by a noun.

- 10 In claiming that dependency trees are 'manifestly relational' I mean only that given trees like (a) and (b):

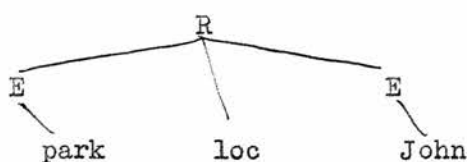


there is no path from Y to Z which does not go through X in (a) while in (b), X, Y and Z are equally likely to be relational elements, and the same formal difference would be made to the tree if any one of them were deleted.



11 Or at least they make it less likely that there will be any one fixed word order, as of themselves, dependency structures do not exclude any word orders, as constituent structure trees do.

12 As it is clear from such a tree which elements are relational and which are not, this representation seems typographically the most economic; it is equivalent in every way to a representation such as:



13 Of course the notion 'logical subject' is unambiguous when used purely in relation to agentive sentences; it is when an attempt is made to generalise the notion that difficulties in definition arise.

14 This is not an apology. The basis of some later claims will be that the constraints which this theory imposes on the possibilities for combinations of cases are closer to the facts than those imposed by other theories.

15 One interpretation of this sentence might be that the three non-relational elements in the deep structure are John, Bill and blow, and that these are related by relations of causation, direction and location. However, this is only one possibility.

16 The use of pri- instead of y- in this sentence is connected with the abstractness of the motion.

17 This and all other tree diagrams here are of course highly oversimplified.



- 18 This would no doubt be contested by Dougherty; however, what could not be achieved by a procedure such as marking a sentence with a feature as (+respectively), and then using 'feature percolation' to mark every other node in the simple sentence with that feature? (Dougherty 1970 p 886) Apart from the fact that it is ad hoc, it is also excessively powerful.
- 19 Except, perhaps, for a few idiomatic exceptions.

## 2.1.

The most obvious form of locative may be found in such sentences as:

(1) a. On sidit v komnate "He is-sitting in the-room"

b. Kniga ležit na stole "The-book is-lying on the-table"

There are various prepositions which combine with nouns denoting concrete objects or geographical locations to give a locative phrase. The most common of these are:

v/na + locative case. ("in"/"on")

pered/za/pod/nad + instrumental case. ("in front of"/"behind"/  
"under"/"over")

u/okolo + genitive case. ("near"/"around")

A complete system of contrasts with these prepositions is possible only with nouns referring to three-dimensional objects. Any other type of noun will display a much reduced system of contrasts, if any. Even given a full system of contrasts, it is usually possible to isolate a 'favourite' locational expression, although this may be more a matter of real-world situations than of linguistic structures. It is because of this that Zolkovskij and Mel'cuk (1967 p 211) can postulate a locational parameter, which provides zavod ("factory") and Kavkaz ("Caucasus") with na, škola ("school") and Krym ("Crimea") with v, kapitalizm ("capitalism") with pri, etc. independently of the lexical meaning of these prepositions. However, one must allow for sentences like:

(2) On letajet nad Kavkazom "He flies over the Caucasus"

(3) On živet pod školoj "He lives under the school"

The difference between prepositions with the locative and those with the instrumental seems to correspond broadly to what Hjelmslev (1935) called 'coherence'. This appears to be a composite notion, corresponding, on the one hand, to a distinction between being inside ('coherent') and outside ('incoherent'), and on the other, to the distinction between being in physical contact ('coherent') and not being in physical contact ('incoherent'). Hjelmslev, as I understand him, claims that these two oppositions are in reality two aspects of a single opposition, and if this is indeed so, it would form a useful basis for the distinction between locative and instrumental-governing prepositions. However, I am not certain how such an opposition could be defined as unitary.

Other prepositions may be accounted for by positing positional nouns, which may or may not be expressed in any given expression, and which may or may not exist as an entity separate from its use with a certain preposition:

|                      |                              |   |
|----------------------|------------------------------|---|
| <u>v</u> ("in")      | <u>vnutri/vnutr'/iznutri</u> | <u>*nutr'</u>                                       |
| <u>na</u> ("on")     | <u>naverxu/naverx/sverxu</u> | <u>verx</u> ("top")                                 |
|                      |                              | <u>poverxnost'</u> ("surface")                      |
| <u>za</u> ("behind") | <u>pozadi/nazad/szadi</u>    | <u>zad</u> ("rear")                                 |
| <u>pod</u> ("under") | <u>vnizu/vniz/snizu</u>      | <u>niz</u> ("bottom")                               |
| <u>nad</u> ("over")  | as for <u>na</u>             |   |
|                      | <u>pered</u> ("in front of") | <u>vperedi/vpered/spered</u> <u>pered</u> ("front") |

Although these positional nouns are an integral part of the preposition/adverb in conventional orthography, this is not necessarily proof of their lack of independent status. Evidence of their dependence might be seen in the fact that most of them do not

admit of choice of parameter in the prepositions with which they cooccur - \*nutr', for instance, cannot combine with na or po. But this is not of itself evidence of their dependent status, as there are clearly independent nouns, similar, for instance, to \*nutr' in meaning, which behave similarly in this respect; e.g. seredina ("middle"), glubina ("depth"). The fact that there is little opposition of prepositional parameters with these nouns can be taken as evidence that they are in fact the elements which condition the choice of these parameters.

Furthermore, these nouns decline for the case opposition locative-accusative, denoting respectively static location and motion. This makes them somewhat parallel to the locational uses of the noun dom ("house"), which, over and above its normal six cases, has two special locational cases; thus:

- (4) On sidel vnizu "He was sitting down below"
- (5) On sošel vniz "He went down below"
- (6) On sidel doma "He was sitting at home"
- (7) On ušel domoj "He went home"

This opposition, of course, also applies to other nouns, including other positional nouns, with prepositions:

- (8) On sidel v seredine komnaty "He was sitting in the  
middle of the room"
- (9) On ušel v seredinu komnaty "He went to the centre of  
the room"

Furthermore, they are followed by the genitive case, as one would expect if they were genuine nouns rather than parts of a

prepositional construction:

(10) On žil vnutri goroda. (G) "He lived inside the town"

(11) Ivan šel vperedi vsech. (G) "Ivan walked in front of  
everyone"

by analogy with:

(12) On žil na severe strany. (G) "He lived in the north  
of the country"

This analysis of prepositions and their related preposition/ adverbs gives further support to the separation of locative-governing prepositions from the others, and suggests that the former are in some sense primary. For positional nouns can cooccur only with locative-governing prepositions (and their ablative counterparts on the same parameter). If it is the case that other prepositions are derived from a preposition + a positional noun, then prepositions which govern a case other than the locative must be derived from a construction which includes a locative-governing preposition. In support of this, it is interesting that the ablative prepositions which correspond to locative-governing prepositions are simple in form while those which correspond to instrumental-governing prepositions are complex: v/iz ("in/out of") na/s ("on/from")

pod/iz-pod ("under/from under") za/iz-za ("behind/from  
behind")

Relationships of the type shown above are of course not easy to demonstrate on the complete range of Russian prepositions, but I feel that it is at least in principle possible to give

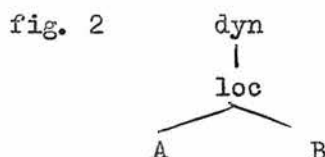
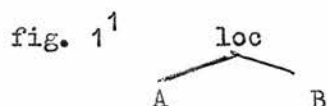
similar explanations for many other prepositions with less obvious explanations; e.g. pri/v prisutstvii ("in the presence of"), o/v oblasti ("about"/"in the sphere of"). However, the point at issue is not that all prepositions come under a scheme such as this one, but that there are interrelations between the most common locative prepositions which are not immediately obvious and which demand an explanation.

Many static locatives have directional-inchoative equivalents: of course all of them could be expressed by periphrasis, but some do this by a simple morphological change. Many prepositions governing the locative or the instrumental do this by changing the case to the accusative. Some simply change the preposition; e.g. u becomes do. Similarly, ablative equivalents are formed by changing the preposition and substituting the genitive case. Thus, v, na, za and u become respectively iz, s, iz-za and ot. e.g.

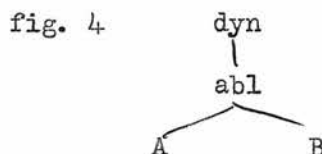
- (13) a. On byl v komnate. (L) "He was in the room"  
 b. On vošel v komnatu. (A) "He went into the room"  
 c. On vyšel iz komnaty. (G) "He came out of the room"
- (14) a. On stojal u vxoda. (G) "He was standing by the  
 entrance"  
 b. On došel do vxoda. (G) "He reached the entrance"  
 c. On ušel ot vxoda. (G) "He went away from the  
 entrance"

The notions introduced so far with respect to a spatial field of reference are essentially very simple. Yet a problem immediately arises when an attempt is made to represent them in an explicit

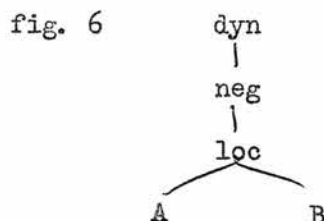
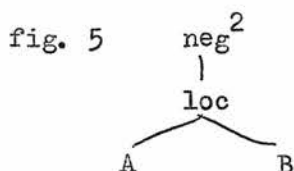
model of the type proposed in ch.1. Given that framework, locative and allative predications will be represented as in figs. 1 and 2 respectively:



However, if the ablative is represented as in fig. 3, what interpretation are we to give to fig. 4, or, alternatively, how are we to exclude it?



It is intuitively obvious that the ablative includes the idea of motion, and it would seem therefore that it is in no sense a primitive relation. The simplest way to avoid this difficulty is to adopt a proposal similar to that argued on purely semantic grounds by Gruber (1970), where the ablative is the motional correlate of absence, which itself is defined as the locative of a negative element - i.e. absence and ablative would be represented by respectively figs. 5 and 6.



Such an analysis gains further (weak) support from the fact that both ablative prepositions and negative elements are closely

associated with the genitive (cf.S.4.3.):

(15) a. On vyšel iz-pod stola. (G) "He came out from under  
the table"

b. On sošel so stola. (G) "He came off the table"

(16) a. U nego net deneg. (G) "He has no money"

b. On nikogo (G) ne videl. "He didn't see anyone"

This might not be a particularly serious argument in a standard type of analysis attempting merely to establish a taxonomy of case uses (this applies even to many transformational studies); however, in any analysis attempting to produce a single criterion for case introduction, as this one is, such a coincidence as this one must be significant, although naturally it does not follow that the connexion between ablative and negative must be as direct as that I have suggested here.

A further set of spatial expressions are 'prolatives' - e.g. Russian čerez ("through"), po ("along"), mimo ("past"), etc. These too would appear to admit of an analysis in terms of nouns of position; in such an analysis, čerez would be on the same parameter as v ("in"), po as na ("on"), and mimo would correspond to all of the 'more complex' prepositions - nad ("over"), pod ("under"), pered ("in front"), za ("behind"), u ("near"), etc. A fuller description would qualify this in several respects, but it is broadly true. Anderson (1971a p 170) analyses prolative prepositions as realisations of the complex case structure  $\left[ \begin{smallmatrix} \text{loc} \\ \text{abl} \end{smallmatrix} \right]$ . This is justified in that the preposition does not merely indicate the initial or final point of the motion ('source' or 'goal' in other terminology), but rather both. However, given the theoretical



framework suggested above, such an analysis is impossible, as the notation I have suggested does not allow for complex case structures of this type. This is not necessarily to be interpreted as a fault of the model, as it is possible to question the validity of Anderson's analysis, which provides very limited information about this construction. It fails to account for the fact that this construction cannot be used to represent a situation in which motion occurs up to a certain point, and is then retraced; e.g.

(17) John walked past the pub

means that John walked some way, and, en route, was near the pub. It cannot mean that he walked to a point near the pub and then went back again.

This particular objection is avoided by Bennett (1972), who creates another case - Path - to deal exclusively with such phenomena. However, this solution is extremely redundant, as Bennett ends up with three cases which combine motion and location (Source, Goal and Path); this misses the generalisation captured by Anderson that any prolative (Path) element has a Source and a Goal within it. Clearly a theory would be preferred which incorporated all of these generalisations. A possible candidate for such an analysis would be one in which a prolative expression was represented by an underlying coordinated sentence; thus a sentence like:

(18) He walked along the street

might have a structure which one might gloss as

(19) He left one point on the street and went to another  
point on the street.

If an analysis of this general type proves acceptable, it will be a more general theory than either Anderson's or Bennett's, and compatible with the general theory proposed in this thesis as an added advantage. However, I do not intend to examine it in detail at this point.

This brief survey of the purely spatial roles of prepositions and cases is intended more as a tentative orientation for use in dealing with less obvious locative forms than as an analysis in itself. It is interesting to note that the concept of 'concrete' location is conditioned by the 'subject' member of the relation, so that the other slot may be filled by any other sort of element, including sentential complements and abstract nouns:

(20) Oni vstretilis' v Moskve "They met in Moscow"

(21) U obez'jan očén' nízkij úroven' prestupnosti

(lit) "At monkeys (a) very low level of criminality"

It is interesting that the representation given to a sentence like (20) will allow two possible inchoative representations to be assigned to it:

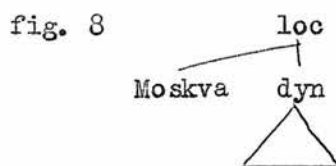
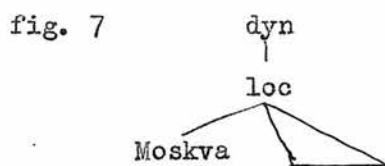


Fig. 7 may be glossed as 'It came to pass that it was in Moscow that they met', while fig. 8 must be glossed 'It was in Moscow that it came about that they met'. The representation of fig. 8 is the most natural interpretation of (22):

(22) Oni načali vstrečat'sja v Moskve. (L) "They began to  
meet in Moscow"

But an addition and stress on Moskva makes fig. 7 possible:

(23) Potom oni načali vstrečat'sja i v Moskve. (L)

"Then they began to meet in Moscow too"

It is noticeable that there is no possible sentence of this type with Moskve in the accusative, so it would seem that the creation of a single element from the inchoative and the verb in the lower predication precedes the assignment of case forms.

## 2.2.

It is appropriate at this point to introduce the notion of 'converseness', which will be of some relevance in later chapters. Although the relators proposed in this model, are of a much more abstract nature, this notion is otherwise essentially identical to the notion introduced by Mel'čuk and Zolkovskij under the same name (cf. Mel'čuk 1970 p 199), and not unrelated to that of Lyons (1968 p 467). With reference to the concrete locative relation this notion may be intuitively understood as follows: given an element in a spatial relation to another element, the situation may be described in at least two ways: "element A is in relation R to element B." "element B is in relation Q to element A." R and Q are what I call converses of each other. For example, (24) and (25) describe the same situation:<sup>3</sup>

(24) Lampa visit nad stolom. "The light hangs above the table"

(25) Stol stoit pod lampoj. "The table stands under the light"

Other similar pairs of prepositions might be na (on)/pod (under), pered (in front)/za (behind), v (in)/vokrug (around). Many theoretically possible converse pairs will have only one realization

because one of the elements is assumed to be bigger or more significant than the other, and only when the elements are of roughly equal status (whatever that may mean in explicit terms) may pairs like (24) and (25) be found. Under this condition, a preposition may be its own converse - e.g. u (near), okolo (near), etc. This is rather like the situation exemplified by Jakobson with reference to the preposition s (with):

(26) Latvia sosedit s Estoniej. "Latvia is next to Estonia"

(27) Estonia sosedit s Latviej. "Estonia is next to Latvia"

(Jakobson 1936 p 60). The choice of one of these is determined by thematic structure.

It is useful to note that if the converseness notion is a significant structural principle, as I shall be claiming it is, then the proposals as to the form of a grammar, made in S1.3., form a natural framework for the formalisation of this principle, much more so than any other type of case grammar proposed. Consider figs. 9 and 10, equivalent representations in Anderson's and my own formalisation:

fig. 9

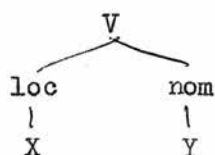
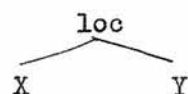


fig. 10



In fig. 9, there is no inseparable link between the element Y and the locative; consequently, some fairly complex engineering would need to be ensured if the notion of its converse were required; but in fig. 10, X and Y are both closely linked to the locative element, and the notion of converseness can naturally be derived

from such a structure. In fact, in some sense, X and Y in fig. 10 are both locatives, and the only way in which this can be undone is to raise them away from the locative predication altogether. Of course, until I have managed to show that such a model could deal with the complexities of nouns of position, it remains an open question whether even this model contains a satisfactory representation of converseness. It is therefore of great theoretical significance to determine whether or not converseness is a notion which is necessary to adequately account for some aspects of grammatical form.

One aspect of 'concrete' location which does not appear to any great extent in this study is time expressions. Clearly, a temporal noun in 'subject' position (cf. S1.4.2. above) of a locative relation will be the conditioning element of a temporal construction. It may be worth noting that such a configuration has been plausibly suggested as the source also of tenses (Anderson forthcoming a). However, I do not go into this matter at all here, as the superficial case structures used in temporal expressions give the impression of being even more arbitrary than those in other parts of the grammar. For instance, the locative-accusative opposition in spatial expressions denotes static location or motion, while in temporal expressions, locative and accusative are in complementary distribution in many constructions:

(28) Gosti stali rasxodit'sja v polnoč'. (A) "The guests  
started leaving at midnight"

(29) Na drugoj den' (A) ja prišel k nemu. "The next day I  
came to him"

(30) V etom godu (L) on ženilsja. "That year he married"

(31) Čto vy čítali na etoj nedele? (L) "What did you read  
that week?"

Some of these expressions are almost idiomatic.

### 2.3.

Undoubtedly the most complex locative realizations are those where the 'subject slot' is filled by an abstract noun. However, this complexity is to some extent, although obviously not altogether, illusory; for whereas one can be fairly sure that a superficial locative construction involving a concrete noun derives from a simple underlying locative, superficial locative constructions involving abstract nouns may be found to derive from whole underlying sentences. Evidence for the complexity of abstract locational structures may be seen in the phenomenon of non-omissibility characteristic of some of them; e.g.

(32) Ivan byl v sostojanii rasstrojstva. "Ivan was in a  
state of confusion"

(33) Ivan byl v rasstrojstve. "Ivan was in confusion"

(34)\*Ivan byl v sostojanii. "Ivan was in a state"

(35) Ona somnevajetsja v jeho sposobnostjax. "She has-doubts  
in his capabilities"

(36) Ona somnevajetsja v nem. "She has doubts in him"

(37)\*Ona somnevajetsja v sposobnostjax. "She has doubts in  
capabilities"

One might compare these sentences with a sentence such as:

(38) On živet v dome svoego otca. "He lives in his father's  
house"

This is a fairly straightforward locative construction, with a relative clause added on to the end of the 'subject' element; i.e. this sentence can be glossed:

- (39) On živet v dome<sub>i</sub> u jeho otca dom<sub>i</sub>. "He lives in a house<sub>i</sub>  
that house<sub>i</sub> is his father's"

Such an analysis cannot be applied to (32) or (35), as one would then expect the genitive derived from the reduced relative clause to be deletable as in (38).

- (40) On živet v dome. "He lives in a house"

Such facts will not be explicable in any analysis which equates the underlying locative relations with the apparent superficial locative relations. However, the fact remains that the locative must come from somewhere; one area in which the superficial facts are in apparent contradiction is in the sphere of equative sentences, and these are the next set of sentences to be considered.

#### 2.4.

One type of equative sentence which I shall omit from consideration immediately is that containing two definite noun phrases: e.g.

- (41) Etot čelovek - moj brat Ivan. "That man is my brother  
Ivan"

- (42) Ivan - tot čelovek, o ktorom ja govoril včera.  
"Ivan is the man I talked about yesterday"

These are characterized by the fact that both terms in them are 'particular' terms (cf. Lyons 1968 p 337), and such terms normally occur only in subject position in equative sentences. To the best

of my knowledge, nobody has yet proposed a very convincing underlying form for this class of sentences; neither can I.

#### 2.4.1.

Consider first the data brought forward in Zolotova 1964. She shows that there is a class of 'pivot' words (e.g. delo ("fact"), zadača ("problem"), vina ("fault"), značenie ("significance"), sut' ("essence")) which may combine with a phrase or clause 'explaining' the pivot word. These two elements may be linked in one of a number of ways; they may both be in the nominative, connected by a (possibly null) copula: the pivot may be in the nominative while the other element is expressed by v + locative case: or the pivot may be in the instrumental case and the other element in the nominative (this time with an obligatory copula).

(43) a. Zadača (N) byla v povýšení (L) produktivnosti  
truda.

b. Zadačej (I) bylo povýšení (N) produktivnosti  
truda.

c. Zadača (N) bylo povýšení (N) produktivnosti  
truda.

"The problem was the raising of productivity of labour"

(44) a. Osnova (N) našej svjazi byla v duchovnoj rodstvennosti.  
(L)

b. Osnovoj (I) našej svjazi byla duchovnaja rodstvennost'.  
(N)

c. Osnova (N) našej svjazi byla duchovnaja rodstvennost'.  
(N)



"The basis of our relationship was spiritual similarity"

Word order in a Russian copulative sentence is no evidence for choosing one or other noun as subject of that sentence. A criterion which seems to me to be generally implicit in the choice of one or other element as subject in traditional grammar is its non-potentiality of transformation into the instrumental in the presence of a non-null copula. We are therefore left with the conclusion that in a restricted set of sentences, the subject is a deep locative phrase.<sup>4</sup>

#### 2.4.2.

There is a certain amount of evidence that this situation holds for a much less restricted set of equative sentences; it appears to be the case quite frequently that when a simple adjective of quality receives some qualification, it may be more easily expressed as a noun phrase, in which case, what would have been its subject becomes a locative of some sort:

(45) a. On umnyj. "He is clever"

b. U nego bol'soj um. (lit) "At him great intelligence"

(46) a. Ona krasiva. "She (is) beautiful"

b. U nee svoeobraznaja krasota. "At her - distinctive beauty"

(47) a. On talantlivyj. "He is talented"

b. V nem mnogo talanta. "In him much talent"

(48) a. On sposoben delat' eto. "He is capable of doing that"

b. V nem sposobnost' delat' eto. "In him capability of doing that"

Similarly, in constructions which can be analysed as equative sentences subordinated to the verb videt', or one similar to it in certain respects,<sup>5</sup> the subject of the equative is converted into a locative, while the other element is made the object of the main verb:

- (49) Oni videli v social-demokratax (L) zamaskirovannyx kommunistov. "They saw hidden communists in the social democrats"
- (50) On vidit v romane (L) 'zaveršenie tradicii Markiza de Sada'. "He sees in the novel the culmination of the tradition of the Marquis de Sade"
- (51) Trudno bylo zapodozrit' v etom tixom soldate (L) prestupnika. "It was difficult to suspect a criminal in this quiet soldier"
- (52) On usmatrival glavnuju opasnost' v pozitivizme. (L)  
"He perceived the main danger in positivism"

This class of sentences overlaps in part with the class of locative equatives with 'pivot' words:

- (53) On vidit sut' romana v dialektike (L) vymysla i realnosti. "He sees the essence of the novel in the dialectic of fiction and reality"

One justification for claiming that the embedded sentence is an equative one is that if the main verb were replaced by the verb dumat' ("think"), the meaning would be little changed, but the sentences would have to contain a full subordinate clause introduced by čto ("that"), and this clause would be equative; e.g.

- (50<sup>1</sup>) On dumajet, čto roman - zaveršenie tradicii Markiza de Sada.

- (53<sup>1</sup>) On dumajet, čto sut' romana - dialektika vymysla i  
real'nosti.

Possible further evidence comes from equative sentences where the predicative element is a past participle; certain of these, used adjectivally (e.g. rasprostranen "widespread", izvesten "well known", ranen "wounded", razvit "developed") may be made inchoative by the use of the locative inchoative pro-verb polučat' ("receive"):

- (54) On polučil rasprostranenie/izvestnost'/ranenie/razvitie.  
"He (it) received currency/fame/a wound/development"

#### 2.4.3.

However, there are other sentences which appear to point to the predicative member of the equative sentence being a locative. Among these are:

A. Sentences with sostojanie ("state") or a hyponym of it:

- (55) a. On byl v sostojanii rasstrojstva. "He was in a state of confusion"  
b. On byl v rasstrojstve. "He was in confusion"  
(56) On prišel v jarost'. "He came into fury" (i.e. became furious).  
(57) Ona v vostorge ot poezdki. "She is in ecstasy over the journey"

But we should be wary of analysing these as straightforward predicative locatives, both because of the argument brought up in S2.3. and because of sentences like the following:

- (58) On byl v tom bodrom i dejatel'nom sostojanii (L), kotoroe ona osobenno ljubila v nem. (L) "He was in that cheerful and energetic state she especially loved in him"

This sentence taken at face value would suggest that he is in a state, and the state also in him; without some further qualification this seems a shade unlikely.

B. Sentences with hyponyms of dolžnost' ("job"). These are more common in the inchoative form:

(59) On byl (služil) v sekretarjax. (L) "He was (served as) a secretary"

(60) Pereveli jěgo iz načal'nikov (G) v zamestiteli (A) načal'nika. "They transferred him from chief to deputy chief"

C. Sentences with prevraščat'sja ("change")

(61) Avtomobil' prevraščaetsja iz universal'nogo transporta (G) v častičnyj. (A) "The car is turning from being a universal means of transport to a private"

(62) Ekologija prevraščaetsja v razdel (A) social'noj nauki. "Ecology is turning into a branch of social science"

An adequate treatment of such sentences would be facilitated if such sentences could be analysed as having a subordinate equative sentence of the type \*avtomobil' byl v universal'nom transporte. (L) ("The car was in universal transport")

D. Other miscellaneous examples support this:

(63) On privel v primer (A) vladel'ca (A) avtomobilja. "He brought the car driver up as an example"

(64) Emu dali v nagradu (A) medal'. (A) "They gave him a medal as a reward"

These are inchoative locative constructions, which would correspond

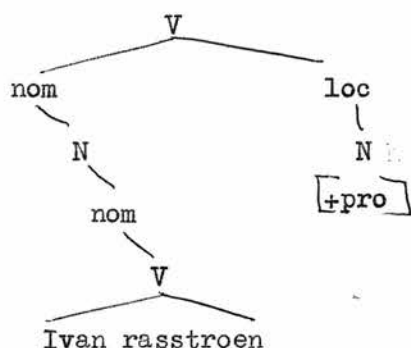
to a non-inchoative:

(65) \*Vladelec avtomobilja byl v primere. "The car owner  
was in example"

(66) \*Medal' byl v nagrade. "The medal was in a reward"

#### 2.4.4.

Various solutions appear to be indicated here; the sostojanie class (A) might be analysable in terms of the proposal put forward by J. Anderson (1972), to deal with the English progressive. The underlying structure for both sentences in (51) would then (using Anderson's formalism) be that shown in fig. 11.



A separately motivated transformation would subjoin the lower nom and the sentence it dominates to the empty pro-noun; the empty N left under the higher nom would then function as a 'quasi-predicator' (empty node destined to receive one of the lower arguments), which would later have Ivan attached to it. The pro-noun dominating the remains of the lower sentence may or may not be realised as sostojanie. The problem would still remain as to what is the structure of the lower sentence in its underlying form - perhaps the most plausible suggestion is that this has Ivan in the locative, as one finds in other equative sentences.

The B-type locatives are a relatively restricted set denoting class-inclusion; one could probably analyse them straightforwardly in these terms, with an optional pro-noun 'class'. Although such an explanation is not possible for the examples of C and D, it is noticeable that they are all inanimate nouns. It might therefore be possible to state tentatively that equative sentences in which a noun is given a qualitative (intensive) characterisation, have a locative subject, while those that are given a characterisation in terms of some external correspondences (extensive), have a locative predicate. (Subject and predicate here used in superficial sense). Locatives which do not appear to conform to this principle may be assumed to be brought in from outside - e.g. from some such area as aspect or tense (e.g. (55), (56) above). If the proposal is accepted that these locatives nodes are superordinate to the main predication (Anderson forthcoming a), then this is no basis for making any claims about the presence or absence of locative elements within the main predication.

#### 2.4.5.

The claim that sentences with 'pivot' words are locative in structure, which appears to be an incontrovertible fact, suggests a natural proposal for verbs which take sentential complements. The point here is that nouns with roots identical to those of complement-taking verbs are quite prominent among the class of pivot-words suggested by Zolotova -

e.g. želanie ("wish") - ja želaju S

namerenie ("intention") - ja nameren S  
vozmožnost' ("possibility") - ja mogu S  
stremlenie ("striving") - ja stremljus' S  
 etc.

This set of data would appear to provide a useful argument for hanging a case node on complement structures, and furthermore, it is perhaps intuitively obvious that a complement structure is in an equative relation relative to the verb that dominates it (e.g. "I wish to go home" - "My wish is that I should go home"). Presumably one could either formalise this by a conventional relative clause structure, (fig. 12) or by a slightly less redundant formalism (fig. 13).

fig. 12

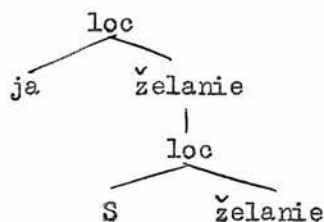
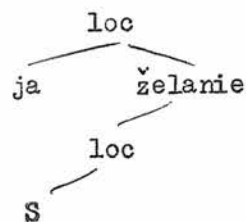


fig. 13



Although fig. 13 is a rather novel structure, it seems to represent fairly well the relationships involved, as long as there is no trouble about mixing up which element of the locative phrases is which. A further possibility is that fig. 13 is derived from fig. 12 (cf. S5. for discussion of this).

## 2.5.

Human nouns as 'subject' of a locative predication characteristically define a relation of possession. This must, however, be qualified in at least two ways; if one considers sentences of the type:

(67) Lampa visít nad Ivanom. "The light hangs over Ivan"

It is clear that they are directly relatable to sentences like (24) - in other words, they are a question of simple, concrete location. One might get over this difficulty by claiming that all human nouns must be accompanied by a noun of position in underlying structure when the location is purely concrete. The second qualification is that human nouns are a slightly indeterminate class, and may at one time or another include nouns denoting institutions, towns, countries, and all nouns which may represent a collectivity of people. Both of these qualifications would no doubt follow automatically in any well-worked-out theory of grammar. For instance, in the following sets of sentences, the (a) sentences contain a noun in a position exclusive to animate nouns, while the same noun in the (b) sentences is inanimate:

(68) a. Institut gotovit reformu. "The institute is preparing a reform"

b. V institute gotovitsja reforma. "A reform is being prepared in the institute"

(69) a. Sever ždal pomošč'. "The north was waiting for help"

b. Na severe ožidalas' pomošč'. "Help was expected in the north"

This said, it is a fairly simple fact that the characteristically human locative is u + genitive case in the meaning of possession. With inanimate nouns, this can also denote possession, but in that instance, it can only be inalienable possession. Possession in the general sense can also include possession of abstract properties, something which may lie at the basis of a certain subset



of equative sentences (cf. S2.4.2.); examples of possessive locatives are:

(70) U nego kniga. "He has a book"

(71) U menja prezrenie k sel'skoj žizni. "I have contempt  
for village life"

(72) Ona sidela u sebja v komnate. "She sat in her room"

The locative nature of possessive relations has been observed over a wide variety of languages (cf. Lyons 1968 S8.4.) The preposition u is used as a spatial preposition as well as one of possession, but its particular spatial meaning is not necessarily relevant to the specific meaning it has as a possessive, because with human nouns as such there is little prepositional contrast. i.e. if one disregards the purely concrete use of animate nouns there is no opposition of locative parameters with them.

The 'converse' of the possessive relation is expressed by s + instrumental case:

(73) On prišel s knigoj. "He came with a book"

(74) On smotrel na menja s prezreniem. "He looked at me with  
contempt"

It is interesting that s + instrumental case can be a converse of itself in other circumstances (viz. sentences (26) and (27)), which one can define in highly impressionistic terms, as instances where the two nouns are of fairly similar status:

(75) a. On prišel s Ivanom. "He came with Ivan"

b. Ivan prišel s nim. "Ivan came with him"

An interesting example of this kind is:

(76) My s Ivanom prišli. (lit) "We with Ivan came"

This may have the meaning "I came with Ivan", where Ivan is manifestly included in the plural pronoun my. This might suggest that even when it is a converse of itself, s is related to a locative of possession or class-inclusion. The motional equivalent of the preposition u in its possessive use differs from that of other prepositions in that it is not a preposition at all but a simple case - the dative.

(77) Jemu (D) dali knigu. "They gave him a book"

However, the situation is a little more complex than this; as an animate noun, the deep 'subject' is very likely to be subjectivised:

(78) On polučil knigu. "He received a book"

Furthermore, one must distinguish alienable and inalienable possession, and this is reflected in the behaviour of possessive locatives when the object possessed is affected by an inherently dynamic (in the technical sense introduced in S1.4.3.) verb. Consider the following pairs of sentences:

(79) a. Ona visela u nego (G) na šee.(L) "She hung around his neck"

b. Ona brosilas' jemu (D) na šuju.(A)<sup>6</sup> "She flung herself on his neck"

(80) a. Vera gasnet u nego (G) v duše.(L) "Faith is dying in his soul"

b. Pokoj l'etsja jemu (D) v dušu. (A) "Peace floods into his soul"

(81) a. Ona sidela u nego (G) v komnate.(L) "She was sitting in his room"

b. Ona vbežala k nemu (D) v komnatu.(A) "She ran into his room"

(82) a. On byl u sebja (G) doma. "He was at (his own) home"

b. On zvonil k sebe (D) domaj. "He rang to his home"

(83) a. Ona sidela u nego (G) v mašine.(L) "She was sitting  
in his car"

b. \*Ona sela jemu (D) v mašinu.(A) "She sat down in his  
car"

From these examples it can be seen that the static sentences with u + genitive case (the (a) sentences), have two possible motional variants depending on the character of the possession. When this is inalienable, the possessive noun generally goes into the dative ((57) and (76)), and when it is alienable, it always goes into the prepositional form k + dative case. (78 b) shows that this applies not only to physical motion; in fact, this covers anything dominated by the abstract element 'dyn' introduced here.

(84) Ona brila jemu (D) borodu.(A) "She shaved his beard"

(85) Eta situacia otravljajet jemu (D) žizn'.(A) "This  
situation is poisoning his life"

(86) Remen' režet jemu (D) plečo.(A) "The strap cut into  
his shoulder"

All of these examples involve causative verbs,<sup>7</sup> which automatically contain the element 'dyn' as an integral component of their structure.

## 2.6.

Underlying the whole of this discussion so far there has been an unstated assumption which it is perhaps advisable to bring forward as an explicit condition on the analysis. The basis for

claiming the status of locatives for non-concrete relations (e.g. equatives, possessives, etc.) rests primarily on the morphological form of the elements which express these relations superficially. Secondly, we can bring forward a notion of economy of relations, which depends on the possibility of formulating rules of great generality; if locative is used purely as a name for a relation which is used with concrete, locational nouns, and if there is any process generalisable between these relations and those holding with other noun-classes, then the restriction of the concept 'locative' to relations involving locational nouns is redundant and will miss generalisations. Such generalisations might be, for instance, the cooccurrence of the node 'loc' with other abstract nodes in the underlying structure. Thus it is possible to say that loc is not directly dominated by erg in any of its realisations. Other generalisations might involve the most economical description of meaning relations such as converses. For instance, if:

(87) U nego kniga. "He has a book" and

(88) On v nesčastje. "He is in misfortune"

are both locatives, then:

(89) On prišel s knigoj. "He came with a book" and

(90) S nim nesčastje. "With him (is) a misfortune" (lit)

may be uniformly described as their converse. Any putative 'locative' relation which did not fall into a general pattern and required a lot of ad hoc restrictions would be a very dubious construct. Such is the basis of any justification for the use of the term 'locative' for non-concrete relations. It will be amply clear

from the preceding and following analyses that such generalisations, in my opinion, hold for a very wide class of relations indeed.

A further matter of some theoretical importance is the question of what it is about one or both of the elements in a locative relation that characterises that relation as equative, possessive, spatial, etc. It should be fairly obvious that the 'subject' element is of crucial importance in determining what sort of relation is in question, but it is equally clear that this is not enough to differentiate all types of locative sentence, and that the other element is also of some importance in classifying locatives. One possible hypothesis is that it is the 'subject' element, along with its relation to the other element in the relation, which is crucial in this respect. For instance, a concrete noun as 'subject' of a locative will define an equative if the other element denotes an abstract quality, (e.g. (50)) a possessive if the other noun is an inalienable part of the first, (e.g. (84)), and a concrete spatial relation otherwise (e.g. (1)). A collective noun may equally denote an equative of the quality type, otherwise it will be an equative of the class-inclusion type. This would surely be sufficient to characterise all possible locative relations.

## 2.7.

It is interesting to note the use of the dative of inalienable possession. As noted in passing above, the dative of coming into possession is not used very frequently with non-causative verbs (causative, of course, being dat "to give", which does take the dative). The reason for this seems to be that the relation of

possession is typically the relation of an animate to an inanimate noun, and, as animate nouns are strong in the hierarchy of raising suggested in S1.4.4., the animate noun is therefore invariably subjectivised in the motional form of the possessive relation, (the fact that it is usually not made superficial subject in the non-motional possessive relation, as in most other Indo-European languages, may be nothing more than a curious idiosyncrasy of Russian grammar). However, at some (presumably fairly late) point of the derivation, motional datives and inalienable-possession datives will be embedded in the same configuration; e.g. for:

(91) Ja dal jemu (D) knigu.(A) "I gave him a book"

(92) Pyl' lezet jemu (D) v glaza.(A) "Dust gets in his eyes"

there will be the partial structures:

Fig. 14

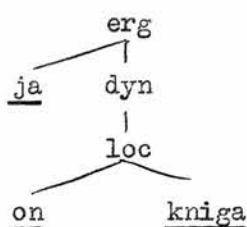


Fig. 15 (underlying)

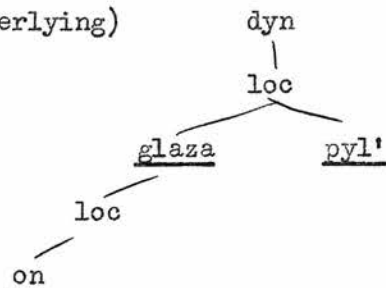
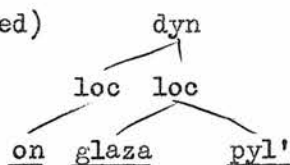


Fig. 16 (derived)



end at which the element is subjoined, this process appears to be essentially identical to the extraposition transformation. As it produces a satisfactory derived structure, I shall assume that that is correct until some consideration is given to the problem of transformations. I have claimed (S1.4.5.1.) that superficial cases are unitary elements at some level of analysis; furthermore, Peškovskij claimed that the dative was the only case with a single overall meaning (1956 p 299), although his evidence for this was rather weak. I have just proposed a set of conditions under which dative case may be introduced at a fairly superficial level. It may now be asked whether this proposal can be extended to all uses of the dative case in Russian.

There are many words similar to dat' in meaning, which also govern a dative case, as well as an accusative; e.g. vručat', ("to hand"), vozvraščat' ("to return"), predostavljat' ("to give, grant"), etc. These clearly fit into the desired pattern of dative nouns. There is also a sizeable class of dative-governing verbs which may be paraphrased by dat' + the corresponding deverbal noun; these also fall under the same definition; e.g. pomogat' - dat' pomošč' ("help"), pozvoljat' - dat' pozvolenie ("permit"), udovletvorjat' - dat' udovletvorenie ("satisfy"), sovetovat' - dat' sovet ("advise"), etc. Other verbs, which do not have this option open to them may nevertheless have a similar structure assigned to them by virtue of their clear similarities in meaning with the verbs which do cooccur with 'auxiliary' verbs of the type dat' ("give"), okazat' ("render"), imet' ("have"), etc. Such verbs are: mešat' ("hinder") - like "help" but with a negative in

it), zapreščat' ("forbid" - negative of "permit"), etc.

Consider next the set of stative verbs in Russian analysed by Miller (1970); this includes, for example, ponimat' ("understand") znat' ("know"), pomnit' ("remember"), dumat' ("think"), ljubit' ("love"), etc. Miller shows these to form a natural class of verbs using both their grammatical behaviour and their cooccurrence restrictions. Of interest here is the fact that they all have paraphrases with a verbal or adjectival element and the dative case of what is normally the subject of the verb; e.g.:

(93) Mne (D) pomnitsja etot den'. "To me is remembered that date"

(94) Mne (D) dumaetsja, čto tak lučše. "To me is thought that it is better thus"

(95) Každomu (D) ponjatno, čto on bolen. "To everyone is understood that he is ill"

These passive-type constructions sometimes have an inchoative form, and, corresponding to that, a construction in which a verb of motion is associated with the 'mental faculty' concerned:

(96) a. Mne (D) vspomnilos', čto on byl na koncerte. "I remembered that he had been at the concert"

b. Mne (D) prišlo na pamjat' (A), čto on byl na koncerte.  
(lit) "To-me came to memory, that he had-been at the-concert"

(97) a. Mne (D) vzdumalos' pojti v gosti. "I (suddenly) thought of going and visiting someone"

b. Mne (D) prišla v golovu (A) mysl' pojti v gosti.  
(lit) "To-me came into the-head the-thought to go visiting"



The (a) and (b) sentences are near-synonyms, both with datives, but the (b) sentences show a clearer motivation for the dative in them; quite clearly, these are datives of inalienable possession, as the following sentences show:

(98) Eto sobytie soxranjaetsja u nego (G) v pamjati.(L)

(lit) "This occurrence is-retained at him in memory"

(99) U menja (G) v golove (L) byla odna mysl'. (lit) "At me in the-head was one thought"

These sentences contain the possessive preposition u.

This analysis is made a little indeterminate by the fact that there is another class of constructions, sharing basically the same syntactic properties, but for which another analysis is indicated, and the boundaries of these two constructions are not at all clear. Consider:

(100) a. Ja (N) xoču pit'. "I want to drink (am thirsty)"

b. Mne (D) xočetsja pīt'. (lit) "To me is wanted to drink"

(101) a. Mne (D) nado poslat' pis'mo. "To-me necessary to send a letter"

b. Ja (N) dolžen poslat' pis'mo. "I ought to send a letter"

Also a number of constructions like this but which do not have the two alternative realisations:

(102) Ja (N) nameren jexat'. "I intend to go"

(103) Zdes' vam (D) nel'zja kurit'. "You can't smoke here"

These have the characteristic that there are somewhat similar

constructions involving the noun derived from (or synonymous to) the modal verb, along with the possessive u.

(104) U nego net oxoty k etomu. "He doesn't want to do that"

(lit) "At him no wish towards that"

(105) Eto u menja dolg. "It's my duty"

(106) Ja ne imeju namerenija vredit' vam. "I do not have the intention of harming you"

(N.B. Imet' ("have") is used instead of u in a few constructions with abstract nouns.)

However this explanation is also possible for some of the verbs in the previously mentioned group:

(107) a. Ja (N) ponimaju teoriju.(A) "I understand the theory"

b. Mne (D) ponjatna teorija.(N) "The theory is understood to me"

c. U menja (G) ponimanie (N) teorii.(G) "I have an understanding of the theory"

(108) a. Ja (N) ljublju jeje.(A) "I love her"

b. Ona (N) mne (D) nravitsja. "She pleases me" (=a)

c. U menja (G) ljubov' (N) k nej.(D) "I have love for her"

Thus there is some doubt as to which analysis some of the verbs in the 'stative' group can be subjected to. However, I hope it is clear that, on one analysis or another, the dative can be explained by a very general rule. It may seem a little odd that the dative - a motional case - is used in these examples when there is a non-motional case expression - u + genitive - being used in near-synonymous sentences. However, if one considers the form of

the predicators involved, this seems less surprising. The words nado, dolžen, nameren, ponjatno, izvestno, etc. belong to a class of words which Soviet grammarians have long argued over - the so-called 'category of state' (cf. Miller 1971b). Many of this group have the ending -no, which is morphologically identical to the ending of the neuter short form of the past passive participle. Given the hypothesis that these are passive (which is supported by the obvious passivity of forms like pomnitsja, xočetsja, etc.). and also past, they are semantically perfective - e.g. izvestno means "it has become known". This would seem to be an explanation of the motional nature of the case forms with which they cooccur.

Similar arguments may be used to justify analyses of other uses of the dative, such as that with vredit' ("to harm"); one might compare:

(109) a. Progulka budet jemu (D) vo vred.(A) (lit) "The walk  
will be to-him in harm"

b. Kurenje vredit jego zdorov'ju.(D) "Smoking harms  
his health"

The dative in (109a) is clearly again a dative of inalienable possession, which would explain the other dative. It is interesting in this connexion that there is a similar antonymous expression byt' komu-nibuđ' (D) na pol'zu (A) ("to be useful to someone"), also with a dative of inalienable possession. Assuming that there might be a superordinate term, of which vred and pol'za were hyponyms, an attractive representation might be devised for the so-called 'dativus (in)commodi' (cf. Klimonow et al. 1970). This locative of gain/harm might be superordinated to a whole sentence,

to give final strings such as:

(110) On vbil jej (D) gvozd' (A) v stenu.(A) "He banged a  
nail into the wall for her"

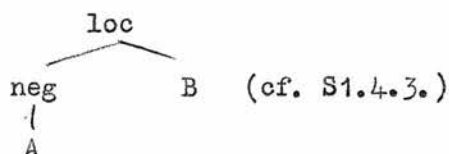
(111) Mat' varila synu (D) kašu.(A) "His mother cooked kasha  
for her son"

The noun would then be ~~deleted~~, as one might assume that sostojanie  
is deleted in the construction noted above (S2.4.4.)

This has not, of course, approached anything like a complete  
analysis of the dative - I do not intend to give consideration to  
every dative-governing verb, and I have not even provided explicit  
structures for those that I have analysed. However, I feel that  
what I have said is sufficiently explicit to serve as a basis for  
further research.

## Footnotes to Chapter 2

- 1 The question of which elements may occur in the A and B positions is treated in S2.6.
- 2 A problem which arises in this representation is that there appears to be no possible difference in interpretation between fig. 5 and a structure like:



This is perhaps a little worrying, and suggests that the decision to allow structures like this was unfortunate. However, nothing hangs crucially on this point in this study.

- 3 I disregard as irrelevant the possibility of the objects not standing or hanging respectively.
- 4 For this and for other examples, there is always the possibility of saying that the two types of construction that I am trying to link could be generated by different underlying structures. the onus, one might say, is on me to prove that these sentences are transformationally related. However, although it is clear that there must be some difference between these sentences (not necessarily a difference in 'cognitive meaning', whatever that is), the regularity of the alternations I am making a case for seems to me to be adequate evidence for the transformational relatedness of these constructions.
- 5 All the verbs which may occur in this construction are verbs of perception: videt ("see") is by far the most frequent.
- 6 A distinction must be made between the dative of inalienable

possession and the so-called 'dativus commodi/incommodi' (cf. Klimonow et al. 1970 and §2.7. below). The latter cannot be the construction in (79) or (80) as it has the following syntactic features incompatible with them:

- (i) it is entirely optional, unlike the dative of inalienable possession:

(79') \*ona brosilas' na šēju.

- (ii) It is used only with verbs of action where the subject acts intentionally; this excludes (80)

- (iii) The object may take a possessive determiner, unlike the object or motional complement with the dative of inalienable possession; thus we may distinguish:

- a. \*Ona pričesala jemu (D) jeho volosy. (A) "She combed his hair for him"
- b. Ona normirovala jemu (D) jeho rabotu. (A) "She set his work for him"

Similarly:

(79'') \*Ona brosilas' jemu (D) na jeho šēju. (A) "She flung herself on his neck"

This is to be expected as the dative of inalienable possession is itself a possessive determiner of the object. Its ungrammaticality is therefore explicable in the same way as that of:

c. \*Jego (G) kniga Petra. (G) "His book of Peter's"

- 7 By 'causative verbs' I mean simply verbs which denote an action leading directly to a change of state (including creation or destruction) in the object. All of the verbs in (84) to (86) fit this definition.

## 3.1.

It has already been shown (§2.1.) that it is possible, and structurally desirable, to derive spatial ablative from a combination of negative and locative rather than to posit an underlying 'abl' element. This, however, is an analysis which is manifestly impossible for the superficially identical forms expressing a causative meaning, such as:

(1) On sdelal eto iz vežlivosti. "He did it out of politeness"

(2) On p'et ot skuki. "He drinks out of boredom"

Obviously there is no possible paraphrase or plausible explanation of these in terms of a gloss such as "He did it in non-boredom". The most plausible grouping of these is with the instrumental of agent or instrument, as an ergative case. Historically, these are very closely linked; in Old Russian, ot ("from") + genitive was used as an agent in the passive, while instrumental was used also for expressions of reason (cf. Popova 1969 p 100, Bernstejn 1958 ch 5. For modern Russian instrumental of reason see Finkel' 1958). For the time being, therefore, ablative prepositions may be regarded as complementary to the instrumental in the realisation of at least one underlying case.

Other uses of the instrumental have never been given a very convincing explanation as a whole, in spite of the number of works devoted to this task. Perhaps the only attempt at a really unified theory of the instrumental is that of Veyrenc (1971). He claims that the instrumental does not have a single meaning, but is characterised by the syntactic feature of embedding - i.e. a sentence with an instrumental always contains two underlying

sentences, one of which is embedded in the other. He has some plausible things to say in this respect about double object verbs; e.g. one can say:

- (3) Oni zasejali pole pšenicej (L) "They sowed the field with wheat"

but not:

- (4)\*Oni sejali pole pšenicej

which would, were it possible, have the same meaning as (3), but is not because the verb is imperfective and un-prefixed. Veyrenc explains this by analysing (3) as two sentences:

- (5) a. Oni za ..... pole (A) "They 'za' (prefix) .... the field"

- b. Oni sejali pšenicu (A) "They sowed wheat"

However, Veyrenc does not elaborate in sufficient detail on this hypothesis for it to be adequately tested, and not all of his arguments appear to lead in the same direction. It can therefore still be said that the instrumental has not been given a satisfactory explanation.

It is interesting in this connexion to consider the type of sentence in which the instrumental or ablative preposition alternates with the nominative or accusative; (for English parallels cf. Fillmore 1968 p 48):

- (6) a. Serdce (N) kipit gnevom.(I) "(My) heart is seething with anger"

- b. Gnev (N) kipit v serdce.(I) "Anger is seething in my heart"

- (7) a. Oni gruzili baržu (A) drovami.(I) "They loaded the



barge with firewood"

- b. Oni gruzili drova (A) na baržu. (A) "The loaded  
firewood onto the barge"

- (8) a. Ona gotovila obed (A) iz diči. (G) "She cooked a dinner  
from game"

- b. Ona gotovila dič' (A) na obed. (A) "She cooked game  
for dinner"

This class of verbs is quite widespread, especially so when one includes in it verbs which differ in prefix in the (a) and (b) uses (e.g. ščistit' "clean (from)", očistit' "clean (of)"), and also completely suppletive pairs (e.g. dat' "give", snabdit' "supply"). The (a) and (b) forms in the above pairs of sentences are not synonymous; the (a) forms have a meaning of exhaustiveness or completeness not found in the (b) forms. This, it seems to me, is not an isolated phenomenon; the expression of definiteness in Russian is typically a function of word order in conjunction with stress (Pospelov 1970):

- (9) a. Mal'čik prišel. "The boy came"

- b. Prišel mal'čik. "A boy came"

The sentences in (9) will be translated as shown, providing the normal sentence-final stress is present. This clearly has implications for the construction under consideration, in that the definiteness of the noun seems to correlate in some way with whether we are talking about the whole of the object or only a part of it. This discussion is inconclusive, but if an explanation is possible of the alternation in (6) - (8) in terms of 'information structure', as I have tried to show it may be, then

the difference in meaning between the (a) and (b) sentences in the above examples may possibly have nothing to do with any difference of case or structure. Consequently, they will be alternate realisations of the same case structure.

It seems possible to characterise this class of sentences as those which contain a locative clause as the lowest sentence in their structure (for the primacy of the locative over the instrumental cf. S2.1.). When the 'non-subject' element is raised for objectivisation or subjectivisation, the (b)-type sentences are formed; when the 'subject' element is raised, we get the (a)-type sentences. When the 'subject' is left behind, it is realised as a locative, the other element - as an instrumental, or an ablative preposition (the difference will be dealt with below S3.4.). This construction is clearly an example of 'converseness', as defined in S2.2. Traditionally, at least some of the uses of the instrumental shown in this construction have been labelled 'instrumental of material' (Bernštejn 1958 ch 3, also Mrazek 1964, Worth 1958), as in:

(10) Rabočie pokryli ulicu (A) asfal'tom.(I) "The workmen covered the road with asphalt"

(11) Ona nabila podušku (A) puxom.(I) "She stuffed the pillow with down"

What other evidence is there for the analysis of the instrumental in terms of converseness of a locative? The data brought in in S2.4.1. to account for equative sentences of the type delo v tom, čto "The fact is (in) that.." seems to be a convincing example of this analysis. However, there are problems with this

analysis, in that some equative sentences seem to have a predicative locative, which may elsewhere be realised as an instrumental (cf. S2.4.3.). However, no final representation has been attempted for these sentence-types yet; it is therefore not possible to say whether they represent true counter-examples. Even granted that they do not, the alternation of the instrumental and nominative in predicative position remains unexplained.

It is interesting to consider the direct lexicalisation of the locative relation where deep and superficial subject coincide. The verb imet' ("have") takes the accusative, but is little used and usually occurs only with abstract nouns as object; as Nilov (1930) says: "The verb imet', the use of which is not in the spirit of the language". This is perhaps rather quaintly phrased, but it is undoubtedly true. Other lexicalisations of the locative relation do govern the instrumental, and are more frequently used.

(12) Ivan obladajet xorošim golosom. (I) "Ivan has a good voice"

(13) Kapitalisty vladejut orudijami (I) proizvodstva. "The capitalists control the means of production"

(14) On videl damu s sobakoj. (I) "He saw a lady with a dog"

These verbs are given in dictionaries of synonyms along with imet', and they typically denote the relation of possession, whether alienable or not. It is difficult to see how they could be analysed as anything other than the simple locative relations. Given sufficient evidence for the converseness hypothesis, the verb imet' could easily be marked as an idiosyncratic exception, perhaps especially so as its main use is in V + N constructions synonymous with the

simple verb corresponding to the N; imet' vozmožnost' ("have the possibility") - moč' ("be able"), imet' namerenie ("have the intention") - namerevat'sja ("intend"), etc.

Traditionally the 'instrumental of limit' is used to specify what part of the superficial subject is applicable to the verb. The noun phrase in the instrumental must be in a relation of being inalienably possessed as regards the subject. Mrazek (1964, ch 5) provides the following examples:

(15) Oni otličajutsja drug ot druga vesom.(I) "They differ from each other in weight"

(16) On napominaet svoim obraščeniem (I) prikazčika. "He resembles a servant in his manner"

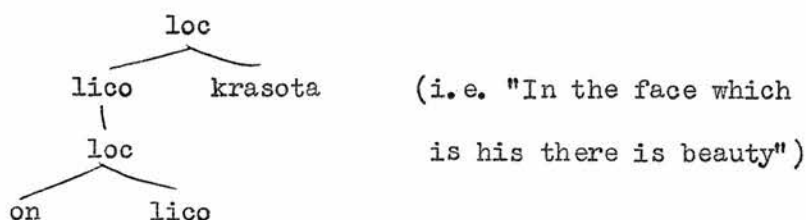
(17) On krasiv licom.(I) "He is handsome in the face" (?)

These resemble the sentences considered by Fillmore (1968 p 23) such as Your speech impressed us with its brevity where a plausible analysis suggests that the superficial subject is not even a major constituent of the underlying form. One might suggest, for instance, that a sentence closer to the underlying form of (11) is:

(18) Lico u nego krasivoe. "His face is handsome"

The implications of this are obvious; this form of the instrumental can also be plausibly analysed as the converse of a locative, this time a possessive locative. The structure of (18) will be something like fig. 1:

Fig. 1



A fairly large number of verbs may govern the instrumental case; of these, some may be analysed as passive, although they are usually treated as separate verbs, and are more frequent than their non-passive counterparts - e.g. vosxiščat'sja ("admire"), zanimat'sja ("be engaged (in)"), interesovat'sja ("be interested (in)"), etc. The large mass of these verbs, however, are inexplicable by any traditional syntactic process, and must be considered fairly unmotivated, although they do break down into classes. It seems to me, however, that an analysis in terms of converseness of locative can deal with a large number of these verbs which are not obviously classifiable together otherwise. This possibility is most marked in three groups of verbs:

## A.

The first can be passed over quickly as it is the class of two-object verbs talked about above; more examples can be provided:

- (19) a. On nasypal zerno (A) v mešok.(A) "He poured grain into the sack"  
 b. On nasypal mešok (A) zernom.(I) "He filled the sack with grain"
- (20) a. On zatykaet vatu (A) v uši.(A) "He stuffs cotton wool in his ears"  
 b. On zatykaet uši (A) vatoj.(I) "He stuffs his ears with cotton wool"

## B.

Verbs denoting control or government normally take the instrumental; a curious feature of these is that they may at times be passivised normally:

- (21) a. Rabotnik rukovodit učreždeniem.(I) "A worker runs the establishment"  
 b. Učreždenie rukovoditsja rabotnikom.(I) "The establishment is run by a worker"
- (22) a. Milicioner upravljaet mašinoj.(I) "The policeman drives the car"  
 b. Mašina upravljaetsja milicionerom.(I) "The car is driven by a policeman"

There is also a possible locative paraphrase which has the same order of constituents as the passive (i.e. is a converse):

- (23) Učreždenie, pod rukovodstvom (I) novogo direktora (G)....  
 "The establishment, under the control of a new director..."
- (24) Armia, pod komandoj (I) izvestnogo generala (G) ...  
 "The army, under the command of the famous general...."

There is also a curious near-synonymous expression with the double-prepositional construction vo glave s (lit "in the head with") + instrumental:

- (25) Učreždenie, vo glave s novym direktorom (I) .... "The establishment, with a new director at its head ...."

All this suggests that this expression is fairly complex, and that at least two locative phrases are involved; whatever the precise structures involved, it seems clear that however the locative is explained, the instrumentals may be explained as being the converse thereof.

C.

Mrazek (1964 S2.2.) analyses one class of verbs governing the instrumental as denoting "privedenie v dviženie" (bringing into

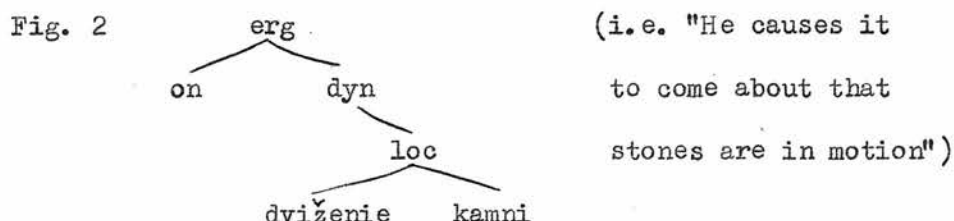
motion). This seems to me to be a reasonable analysis of these verbs, and if one can analyse these verbs as being a causative dominating a locative whose subject is some hyponym of the noun dviženie ("motion"), the instrumental in the superficial realisation is explained as being a converse. Examples are:

(26) On brosaetsja kamnjami.(I) "He is throwing stones"

(27) On dejstvuet loktjami.(I) "He is elbowing" lit. "acting with elbows"

(28) On kačal golovoj.(I) "He shook his head"

The structure of (26) would therefore be fig. 2:



These three groupings of verbs will account for a very large number of instrumental-governing verbs with apparently unrelated semantic specifications.

It is possible to bring up a number of other isolated phenomena which may be explained by the converseness hypothesis; consider, for example, the following pairs of sentences:

(29) a. On prines sebja v žertvu.(A) "He brought himself as (lit. in) sacrifice"

b. On žertvoval soboj.(I) "He sacrificed himself" (instr)

(30) a. Dali jemu v nagradu (A) medal'. "(They) gave him a medal as (lit. in) a reward"

b. Jego nagradili medal'ju.(I) "(They) awarded him a medal" (instr)





noted in Anderson 1971a SS11.2. - 11.3. (and above S1.2.4.). It was noted above (S2.1.) that the ablative must incorporate a dyn element, as it excludes domination by it, and that therefore it is the motional correlate of negative location. It has been shown (Miller 1970, and S1.4.3. above) that a locative cannot be directly dominated by an erg. This is shown in the fact that stative verbs do not have direct causative equivalents; also in the fact that locatives of state (S2.4.3.) have inchoative equivalents with the accusative; causatives of these also take the accusative; e.g.:

- (32) a. General v otčajanii.(L) "The general is in despair"  
 b. General prišiel v otčajanie.(A) "The general came into despair" (i.e. became despairing)  
 c. Poraženie privelo generala v otčajanie.(A) "The defeat brought the general to despair"

Thus (a), (b) and (c) here have increasingly complex structures, and in particular, (c) is built on top of (b) rather than on (a). However, there is no evidence that an erg cannot directly dominate another erg, as a hierarchy of causatives of indeterminate length is quite possible. One could, of course, state these restrictions on dominance in the grammar and leave it at that; after all, that is the normal procedure of transformational grammarians. However, the fact that it may be directly dominated by an erg, in conjunction with the various facts about complementarity with ablative suggested by Anderson, indicate that erg too may incorporate a dyn element within it. I shall now go on to consider this possibility.

No attention was paid in S2.4.3. to the detailed structure of verbs like prevrašťat'(sja), which were considered there in relation

to the structure of the equative sentence:

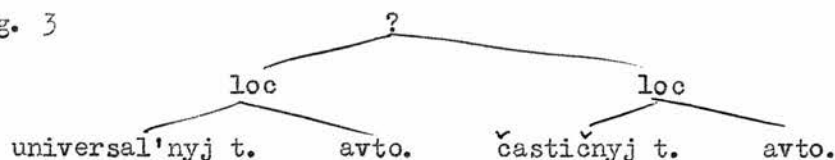
(33) (= (61) ch 2). Avtomobil' prevraščáetsja iz universal'-  
nogo transporta v časticnyj. "The car is changing from  
(being) a universal means of transport to a private one"

(34) Červjak prevratilsja v babočku. (A) "The worm turned  
into a butterfly"

(35) Socializm prevratil utopiju (A) v nauku. (A) "Socialism  
has turned utopia into a science"

It was stated in chapter 2 that (33) might contain a predicative locative; in fact, if it contained one, it would contain two, connected in some way as shown in fig. 3:

Fig. 3



It seems likely that (34) must be analysed in terms of a variable, for if the object in question had a name (if it was a prince in a fairy story, for instance), a sentence like (36) would be possible:

(36) Aleksandr prevratilsja iz červjaka (G) v babočku. (A)  
"Alexander turned from a worm into a butterfly"

In (35), utopia retains its identity, merely having the implication that it was not a science before socialism made it so. All of these will, however, involve the node ?, which is used in fig. 1. This node is clearly motional, and appears to define the left-hand node as being ablative, and the right-hand node as being allative, without apparently having a neutral argument, as does loc.

This structure brings to mind the interesting analysis of causative constructions produced by V.P. Nedjalkov and

G.G. Sil'nickij (1969). They suggest that the causative construction is composed of two 'microsituations' linked by a causative constant; each microsituation consists of an object and a state of that object. This has a remarkable similarity to the structure represented in fig. 1. It is furthermore interesting that the 'antecedent situation' is associated with the instrumental and with ablative prepositions, while the 'consequent situation' is composed of locatives of various types:

- (37) a. My vernulis' iz-za doždja.(G) "We returned because of the rain"
- b. My vernulis' iz-za bolesti (G) brata. "We returned because of (lit. out of) (my) brother's illness"
- c. Ona vyšla замуž iz pokornosti (G) k materi. "She married out of obedience to her mother"
- d. On pokrasnel ot styda.(G) "He blushed from shame"
- e. Svoim krikom (I) on ispugal menja. "He scared me with his shout"
- f. Družnymi zabastovkami (I) rabočie zastavili xozjaev koncerna otstupit'. "With unanimous strikes, the workers forced the owners of the firm to give way"
- (38) a. Ty vinovat v jeho uxode.(L) (lit) "You are guilty in his going-away"
- b. Jego ošibka privela k našemu poraženiju.(D) "His mistake led to our defeat"
- c. Jego slova tolknuli jeje na prestuplenie.(A) "His words drove her to crime"

Although the analysis in the above-mentioned article does not

appear to be based on any linguistic sort of reasoning but to be almost purely a priori, the data contained in it seems to offer some indication of how a purely linguistic justification of this hypothesis might be advanced. Let us assume that the node in question is in fact the '?' node. Assuming that the alternation of individual ablative or locative prepositions could be given some principled explanation, probably on the basis of their lexical environment, it seems likely that the other distinctions can be accounted for on a purely syntactic basis. The distinction between (37) and (38) is automatically accounted for on the basis of which side of the '?' node the case expressions originate. The instrumental in (37 e-f) might possibly be accounted for on the basis of its being 'dislocated' or 'topicalised' out of the antecedent situation.

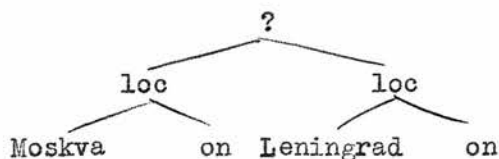
Thus the '?' relation appears to give a satisfactory representation both of causative constructions and of prevraščat'sja constructions. It must be noted, with regard to the latter, that they imply that the antecedent situation is no longer operative at the time of the consequent, while this implication does not exist for causative sentences. This, in fact, provides a basis for the differentiation of the two constructions, the one being realised when the two linked predications are compatible, the other when they are incompatible with each other. It will evidently be a considerable problem defining for these purposes what is meant by being incompatible, but this problem can safely be ignored in this study.

It has already been suggested that in sentences like:

(39) On uexal iz Moskvy v Leningrad. "He went from Moscow to Leningrad"

the ablative is the motional form of a negated locative, and that the pair of prepositional phrases in it represent a progressive definition of the destination - i.e. the first prepositional phrase conveys the information that the destination is not Moscow, while the second conveys the further, more precise, information, that it is Leningrad. This can be seen as rather like such phrases as včera v tri časa "yesterday at three o'clock", where the second time phrase conveys more precise information than the first. However, sentence (39) conveys more information than this; it also specifies that his location before going to Leningrad was Moscow. This information is conveyed if the '?' relation is used to conjoin two locative phrases, as in fig. 4.

Fig. 4



It is interesting that this analysis captures the generalisation stated by Anderson (1971a S8.2.) that all motional sentences contain an ablative, without having to postulate a separate (and highly redundant) case, as was at first posited by Anderson. In this sense, it is a preferable analysis; but where does it leave the element 'dyn', which was postulated on fairly solid evidence (S1.4.3.)? It seems to me that there are no bad consequences and several good ones if 'dyn' is said to be a two-place relation rather than a one-place. Firstly, we can abandon altogether the idea of one-place (intransitive - S1.4.3.) verbs in underlying

structure if dyn becomes two-place, and if we accept Anderson's suggestion (forthcoming b) that negative sentences are dominated by a predication which differs from an existential only in its case structure.<sup>1</sup> This two-place dyn is the '?' which was posited above; it is therefore not surprising that the hypothetical ergative case we have now rejected appeared to incorporate dyn in its structure. Furthermore, where the antecedent and consequent predications are explicit, only an analysis in terms of a two-place relation is satisfactory. It is clear that, at least in derived structure, dyn is often likely to dominate single elements, but this is hardly surprising; structures with unrealised nodes are common throughout the transformational literature - for instance in the short passive, the 'deep subject' remains unrealised; it is only by some such procedure that certain ambiguities can be represented in a grammar:

- (40) a. Biblioteka byla odkryta. "The library was open(ed)"  
       b. Biblioteka byla odkryta bibliotekarem. "The library  
           was opened by the librarian"

and in English:

- (41) a. The lights were dipped.  
       b. The lights were dipped by the oncoming driver.

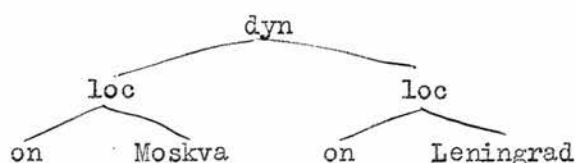
In both of these examples, the short passive and the adjective are identically realised, and only the presence of an agent disambiguates them in favour of the passive. The fact that dyn may have an empty argument is consequently in line with tradition; the notional justification for it having this extra argument is that one cannot go anywhere or become anything or begin anything without having been elsewhere or having been something else or having done something

else respectively, even if these prerequisites are not specified on each occasion that they might be.

Returning to the characterisation of instrumental case and ablative prepositions, the problem appears to be reduced from three to two groups by this reanalysis; on the one hand the leftmost argument of a dyn relation ((i) and (ii) in S3.2. above) - on the other, the rightmost ('non-subject') argument of a loc relation ((iii) in S3.2. above). It seems necessary, therefore, to give some explicit consideration to the question of which properties of arguments are reflected in their position with respect to a relation. The criteria which appear to characterise what I have called the 'subject' of a locative relation are being associated with the 'logical subject', whatever that is (cf. S1.4.2.), and being the principal criterion for giving the relation a reading as spatial, possessive, equative, etc. (cf. S2.6.). It has been assumed above that the 'logical subject' of a locative is the 'unmarked subject' of stative verbs; however, this is not a necessary conclusion - surely in a sentence such as John is in the park, John is the logical subject rather than the park. If this is so, then the two criteria given above conflict, and one of them must be rejected; if one looks at the dyn relation, it is clear that its arguments must be whole predications rather than atomic elements - i.e. either loc-predications or dyn-predications. However, their occurrence on either side of dyn does not appear to be constrained except by purely lexical restrictions, so it therefore appears that the second criterion mentioned above, that of a single argument characterising the relation, does not appear to be relevant; even

for locative, it only accounts for some interpretations (cf. S2.6.). There only remains the criterion of logical subject, which, although very vague, will suffice here; the 'classical' logical subject - i.e. the agent - is the leftmost argument of dyn. On somewhat weak grounds I claim that the logical subject of loc is in fact the reverse of what I have maintained up to now - e.g. "John" in the above sentence. Thus fig. 4 will now look as follows:

Fig. 4'



By this decision (which is admittedly not adequately justified), we have redefined the instrumental/ablative group as a realisation of the 'subject' argument of any relation - i.e. it is a configurational definition independent of any particular relation.

### 3.3.

In view of the confusing reversal of trees I have just committed, and of the general complexity of the argument, a somewhat more explicit recapitulation seems to be in order here, before I go on to discuss the possibility of differentiating the instrumental from ablative prepositions within a uniform overall definition.

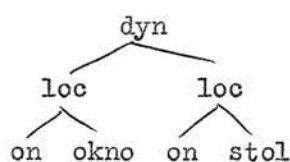
The instrumental case and the ablative prepositions appear to be interrelated in terms of at least some of their possible uses, as well as (much more closely) historically. Three more or less homogeneous groups may be discerned in a close analysis of these constructions:



- (i) Spatial ablative (this excludes the instrumental case)
- (42) On ušel ot okna (G) k stolu.(D) "He went from the window to the table"
- (43) Ona vzjala knihu so stola.(G) "She took the book from the table"
- (ii) Causative (including agent and instrument)
- (44) Ja sdelal eto ot vozmuščenija.(G) "I did it from indignation"
- (45) On ubil sobaku nožom.(I) "He killed the dog with a knife"
- (46) Sobaka byla ubita im.(I) "The dog was killed by him"
- (iii) Converse of locative
- (47) On tret grud' (A) maz'ju.(I) "He rubs his chest with ointment"
- (48) On organizuet obščestvo (A) iz molodeži.(G) "He is organising a society of (from) young people"
- (49) Volnenie ovladelo im.(I) "Emotion overcame him"

Given an analysis in which causation and motion are together represented by a relational element 'dyn' whose 'subject' (leftmost element) is defined in terms of some notion like 'source', the instrumental/ablative group may collectively be defined as the subject node of any relation, realised under certain conditions. Thus (42) will have the underlying structure (greatly oversimplified, of course) in fig. 5.

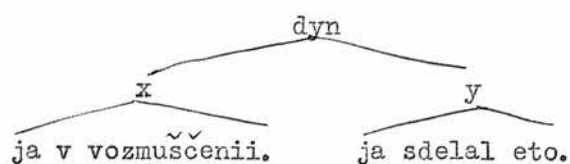
Fig. 5



(44) will be represented as in fig. 6, remembering that no analysis

has as yet been carried out on its component elements:

Fig. 6

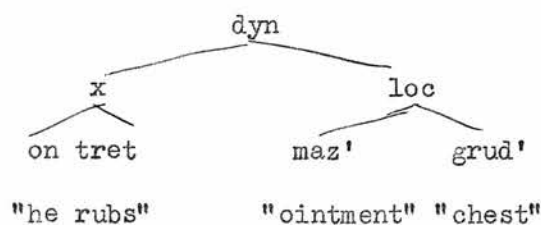


"I (am) in indignation"

"I did it"

(47) will be as in fig. 7 again taking into account the fact that only part of it has been subjected to analysis:

Fig. 7



Superficial subjects and objects will presumably be formed by some sort of raising transformation (I shall discuss transformations in later chapters), leaving the unraised elements to be realised configurationally as ablative, instrumental, locative, etc. Given some independent justification of the transformational operations involved, this appears to be a fairly satisfactory procedure, at least insofar as it isolates the instrumental/ablative from other possible realisations of cases. Problems remain, however, in the differentiation of ablative and instrumental from each other. In its spatial use, ablative does not intersect with the instrumental, which is used as a 'prolative' (Anderson 1971a S11.1.).

It is therefore interesting that other prolatives in Russian - po + dative ("along") and čerez + accusative ("through") (cf. S2.1. above) - also may be used as expressions of causation or agency:

- (50) a. On vozvraščalsja domoj lesom. (I) "He came home  
through the forest"

- b. On byl ubit tovariščem.(I) "He was killed by a comrade"
- (51) a. On idet po ulice.(D) "He is walking along the street"
- b. On ne prišel po bolezni.(D) "He didn't come through illness"
- (52) a. My jexali čerez Gruziju.(A) "We were going through Georgia"
- b. Obědinenie okazyvaet pomošč' čerez svoix togovyx partnerov.(A) "The organisation offers help through its trading partners"

It can hardly be a coincidence that virtually any form containing an ablative (for evidence that prolatives contain ablatives see Anderson loc. cit.) has some sort of causative interpretation. The problem is to find any difference of a systematic nature between ablatives and prolatives.

### 3.4.

It is interesting that figs. 5 and 6, which represent sentences which will contain ablative prepositions, differ from fig. 7 in that the latter does not have a common element within the two arguments of dyn (although the inalienable possession of grud' "chest" might be marked by a second occurrence of on). Here the interesting question arises of the difference between the use of the instrumental and the use of the ablative in converse-locative examples. Although fig. 7 is a reasonable representation for those with the instrumental, it will not do for those with the ablative; take a sentence like:

- (53) On svil bečevu (A) iz travy. (G) "He wove a rope from grass"

This is synonymous to the sentence:

- (54) On sdelal bečevu iz travy. "He made a rope from grass"

The implication is that the rope was created, and this would not be captured in a structure like fig. 5. Furthermore, one can use this expression with iz within a noun phrase, to denote the material with which something is made; thus bečeva iz travy means simply "a grass rope", just as dom iz kamnja means "a stone house" and ložki iz srebra means "silver spoons".

For example one can say:

- (55) U nego bečeva iz travy. "He has a grass rope"

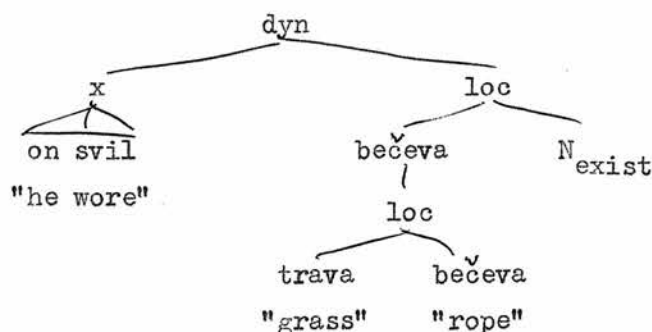
corresponding to (53), but one cannot say:

- (56) a. \*U nego barža drovami. (I) "He has a barge with firewood" or

- b. \*U nego uši vatoj. (I) "He has ears with cotton wool"

corresponding to (7) or (20). (53) might therefore have a structure something like that in fig. 8:

Fig. 8



(N.B. the loc directly dominated by bečeva is simply the equivalent in dependency terms of the standard NP S analysis of relative clauses in transformational grammar)

It is likely that the converse type of sentence has a different

structure from this, unlike the pairs which take instrumental.

(57) On svil travu v bečevu. "He wove (the) grass into rope"

The ablatives considered up to now are those which are in direct relation (i.e. in the same simple predication) with elements identical to elements in some other part of the sentence structure. A tentative hypothesis, therefore, is that ablatives are realised in the positions defined for instrumentals and ablatives when the element with which they are in direct relation has been deleted under identity with some other element of the sentence. As it stands, this hypothesis is obviously wrong, taking into account such examples as:

(58) My vernulis' iz-za doždja.(G) "We returned because of  
the rain"

(59) Iz-za šuma (G) ničego ne slyšno. "Because of the noise,  
nothing is audible"

Both of these ablatives can be seen as nominalisations, although they do not seem to be at first glance. The only way in which they can receive a sensible interpretation is that they be nominalisations of some sort of existential predications; as such, they would become a single element, and thus be formally equivalent to a predication in which a node has been deleted. It seems, therefore, that there is some hope for the analysis I have suggested above for the ablative; however, the detailed working-out of such an analysis is not easy, and must depend on an explicit sequence of transformations in conjunction with detailed underlying structures for each type of sentence. None of this will be attempted now, but in S5. I hope to make more explicit the nature of the trans-

formational processes involved in the derivation of constructions of the type considered in this study.

## Footnotes to Chapter 3

- 1 This suggestion will not be developed here, as it presents certain difficulties whose solution might involve changing certain aspects of the model, without affecting the analysis of cases. Throughout this thesis,  $\neg$  will be considered an operator dominating a single relation.

## 4.1.1.

The nominative case in Russian appears at first sight to be the most straightforward of the cases to describe, and this may in fact be so. It was stated above (S1.4.4.) that the subject of a sentence might be formed simply by raising a noun above all dominating elements in a sentence, making it in effect the dominating element; this would accord with the traditional definition of the nominative case as the case of an independent noun; e.g. "Der N ist die merkmalllose Form für die Nennfunktion der Rede." (Jakobson 1936 p 59) "The meaning of the nominative case is the absence of any relation, or simple naming" (Švedova 1970 p 329). Apart from the nominative in subject position and in isolation, this analysis is also supported by the use of the nominative in dislocated elements, especially in colloquial speech (Lapteva 1966, Popov 1964):

- (1) Ona gde tarelka (N) ? "It is where, the plate?"
- (2) Maša i ja (N), my s nej eli rybu. "Masha and I, we ate fish"
- (3) Aviacija (N) - v nej (L) kak v zerkale (L) otryažetsja trud našego naroda. "Aviation - in it as in a mirror is reflected the work of our people"

Dislocated elements can also be in oblique cases, but this is not a counterargument against this analysis, insofar as the dislocated elements and their copies inside the sentence must be in the same case if the dislocated element is not nominative:

- (4) Ix (G) mnogo, etix ograničenij (G), v žizni rebenka.  
"There are many of them, (of) these restrictions, in the life of a child"



The only construction of the nominative which might be likely to cause much trouble in any analysis of the nominative is where it appears in predicative position in equative sentences; I have already confessed (SS2.4.0. and 3.1.) that I am unable to account for the alternation of nominative and instrumental in predicative position in equative sentences. However, although the motivation for this alternation is obscure, the mechanism which produces it can be given a fairly plausible explanation in terms of the account I have proposed so far. Jakobson already provides some clue for this when he shows that nouns in apposition and predicate nominals are identical in the relation they bear to the element they determine - using modern linguistic concepts it seems basically correct to say that predication asserts a relation while apposition presupposes the same relation. To use Jakobson's example (1936 p 59):

(5) Onegin - dobryj moj prijatel'.(N) "Onegin is my good friend"

(6) Onegin, dobryj moj prijatel' (N), rodilsja na bregax Nevy.

"Onegin, my good friend, was born on the banks of the Neva"

One might add, to make the construction even clearer:

(7) On dal podarok Oneginu (D), dobromu moemu prijatelju.(D)

"He gave a present to Onegin, my good friend"

where noun and appositive element are both in the dative case.

Quite obviously, when apposition is at work, the principle governing the assignment of case to the appositive element is concord rather than any primary case-marking rule. There is every justification therefore for claiming that the nominative in a predicate

nominal is also arrived at by a process of concord. Thus one can say that when the predicate nominal is in the nominative, concord is responsible for it, but when it is in the instrumental, it is arrived at by standard case-introduction.<sup>1</sup> The motivation for a choice one way or the other is unclear, but the mechanism is clear. The reason that this cannot be tested on other cases than nominative is that the 'second accusative' and 'second dative' are virtually dead now, having been replaced by the instrumental, which is introduced by the normal case-introduction mechanism. For example, in the 19th century one could find sentences of the type:

- (8) On zastal svoju ženu (A) odetuju.(A) "He found his wife dressed"

This would usually be, in modern Russian: (cf. Kovinina 1970)

- (9) On zastal svoju ženu (A) odetoj.(I)

The second dative was often used in Old Russian:

- (10) Tak dobro i ljubezno mne (D) ... nebom prikrytu (D) byti.  
"It is so good and nice for me to be covered by the sky"  
(Avvakum - 17th century)

(cf. Borkovskij 1968 2. pp 137-145). The only traces remaining of this construction are with odin ("alone") and sam ("my/your/him/her self", etc.) in infinitive constructions:

- (11) Teper' jemu (D) predstoit zaščičat'sja samomu.(D) "Now he is faced with defending himself"  
(12) Xotelos' ŷagat' po l'du odnomu.(D) "I felt like walking over the ice alone"

The mechanism of nominative-introduction is therefore fairly

trivial, the only problems being those of finding out why certain elements become subjects and others do not, what criteria are relevant in raising elements. These are vexed questions, and insofar as I deal with them at all it will be in §4.3. But the complexity involved is such that a mere section cannot cover many of the regularities hidden somewhere under the mass of unenlightening data.

#### 4.2.

The accusative case poses more of a problem; it is not significant merely to say of it, as many Russian grammarians seem to do (e.g. Staniševa 1966) that it is simply the case of the direct object of a transitive verb, as this is an example of a common sort of circular argument; no adequate definition of direct object has to my knowledge been proposed, that does not simply say that it is the strongly-governed element in the accusative case after a transitive verb. 'Objects' in the instrumental, dative or genitive or with a preposition are excluded from the class of direct objects simply because they are not accusative; e.g.

"The basic and typical function of the accusative case is the expression of the direct object of transitive verbs" (Vinogradov 1952-4 vol. 1 p 125)

"Some verbs express actions which pass directly onto another object, this object being denoted by the accusative case without preposition. .... These verbs are called transitive" (loc. cit. p 413)

Nor is it possible to write off the non-accusative complements

as very exceptional; as . . . has already been seen, there are large classes of verbs with regular semantic characteristics which govern complements in cases other than the accusative. A further argument against this definition of the accusative is that it does not account for its use with prepositions, which is extremely regular.

It is on the basis of these prepositional constructions that it might most easily be possible to construct a definition of the accusative case on semantic grounds. It has already been shown (§2.1.) that certain locative and instrumental-governing prepositions govern the accusative case when motion to the object is involved rather than location in it. It is clear that the preposition itself cannot correspond to motion, as it is common to both the static and the motional forms of location. The preposition expresses location; whether it is motional or not is expressed by presence or absence of the accusative case. If so, one would expect this to be reflected in the other uses of the accusative, and it is this hypothesis that will be tested here. It has been established that the element which underlies motion also underlies changes of state and causation - anything that could possibly be called 'dynamic'. It is not absolutely clear how this element is incorporated into all verbs, and therefore it is not easy to prove that the accusative is indeed conditioned by this element, but I shall try to demonstrate that circumstantial evidence is in favour of this analysis even when I am unable to provide explicit structures in the analysis of certain verbs.

Given the analysis of causatives propounded in chapter 3, it is clear that the predication which contains the eventual superficial

object is the non-subject element of a dyn predication. The analysis of double-object verbs given above (S3.1.) shows that there is a syntactic process which can apply to either of the elements in this predication, which selects an element and makes it directly dependent on dyn. I have claimed that this process is essentially just that of raising. Causative verbs in Russian are overwhelmingly accusative-governing; this includes verbs of change of mental state:

(13) Menja (A) trevožit otsutstvie pisem. "I am worried by the lack of letters"

(14) Vse eto besit anglijskix konservatorov.(A) "All of that infuriates the English conservatives"

verbs of change of position:

(15) Oni položili ranenogo (A) na nosilki. "They placed the wounded man on a stretcher"

(16) On vedet arestovannogo (A) v tjur'mu. "He is taking the arrested man to jail"

verbs of change of quality:

(17) Tabak sušit gorlo.(A) "Tobacco dries up the throat"

(18) On belil steny.(A) "He was whitewashing the walls"

verbs of creation:

(19) On stroil sebe novyj dom.(A) "He built himself a new house"

(20) On pišet pis'mo.(A) "He is writing a letter"

verbs of destruction:

(21) Snegli staryj dom.(A) "(They) demolished the old house"

(22) Sovetskaja vlast' uničtožila bezraboticu.(A) "Soviet power has abolished unemployment"

(An exception to this pattern of accusative government is dosadit' ("to annoy"), which governs the dative. It is the causative of dosadovat' ("to be annoyed"))<sup>2</sup>

Although I have no statistical evidence to prove it, I am fairly sure that this group of verbs accounts for the vast majority of accusative-governing verbs, and that, conversely, verbs which do not govern the accusative are overwhelmingly non-causative. The inchoative nature of sub-predications of causative verbs is fairly common knowledge; it was also an integral part of the analysis of causatives in Lakoff 1970, and it is difficult to see how any lexical-decompositionist account of causative verbs could avoid this conclusion.

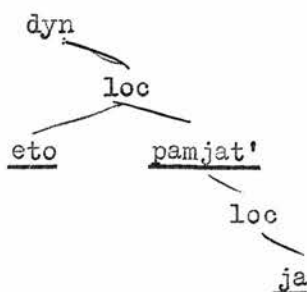
Of course this definition would also apply to non-causative inchoative verbs, and these are generally accusative-governing; e.g. polučat' (receive), priobretat' (acquire), prinitat' (take), etc. An exception would be a verb like ovladet' (take possession of) which governs the instrumental. (It is interesting that both dosadit' and ovladet', while exceptions to the accusative, otherwise conform to the rules already provided; if dosadit' governed the instrumental or ovladet' the dative, then we would be in trouble). It is not entirely clear how far it is possible to take this analysis; it is obviously possible with vspomnit' (remember), as (8) is a near-synonym of (9):

(23) Ja vspomnil eto.(A) "I remembered that"

(24) Eto prišlo mne (D) na pamjat'.(A) "That came to my  
memory"

(24) might have the structure:

Fig. 1



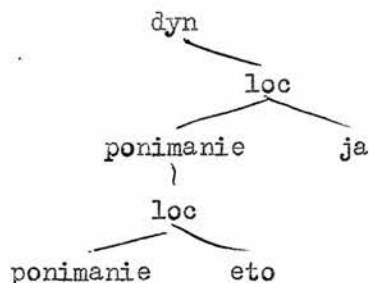
The superficial subject of (23) is chosen from the lowest, possessive, predication.

What is not nearly so clear is whether this analysis can be extended to all verbs involving mental faculties; e.g. ponimat' (understand) and znat' (know). The problem with these verbs is that they are not inchoative verbs, but I have suggested above that they contain a dyn element of 'perfectivity' (S2.7.). It is not at all obvious to me how a dyn used in a perfective sense can be differentiated from a dyn used in an inchoative sense - perhaps there is some other element added to the perfective version; for instance, I would have to give the (inchoative) sentence:

(25) Ja eto (A) ponjal. "I came to understand it"

the structure:

Fig. 2



(For the complement structure cf. S2.4.5.)

The structure of the 'perfective passive' variant of this would have to include this structure, although it is virtually synonymous with the non-inchoative, non-passive, non-perfective sentence,

which is represented by fig. 2 without the dyn. This perfective sentence is:

(26) Eto mne (D) ponjatno. "It is understood to me"

I do not wish to get involved in an analysis of aspect. Suffice it to say that this hypothesis about the motional nature of the accusative is confirmed in this instance if the perfective incorporates fig. 2 as part of its structure. This seems to me most likely; however this may be, the accusative in these verbs seems to be accountable for by the presence of dyn in some structure. There appears to be some syntactic justification for this, as the 'perfective' verbs, which correspond to a 'category of state' element (cf. Miller 1972), have no passive or use with the instrumental, as distinct from other verbs:

(27)\*Eto ponjatno vsemi.(I) "That is understood by everyone"

(28) On ljubim vsemi.(I) "He is loved by everyone"

(29) Vsemi (I) vspomnilos' jeje penie. "By everyone was remembered her singing"

This gives support to the idea that verbs like ponimat' and znat' cannot take the instrumental because they do not have a noun in any position where an instrumental would be possible according to the rules laid down above.

A problem of a rather different kind is posed by a verb like videt' ("see"), the problem being that the accusative could be accounted for in one of at least two mutually incompatible fashions; there seem to be no very clear criteria for choosing between them. The first approach is based on an article by Gruber (1967) on the English verb 'see'. Gruber shows fairly convincingly that the



direct object of 'see' in English is motional, a reduced form of 'see to'. This is shown by the possibility of motional objects with prepositions other than 'to'. When 'to' occurs in deep structure after 'see', it is deleted, giving the superficial form with no preposition. The difficulty with this analysis in Russian is that these motional complements are never possible with videt' ("see"):

(30) a. \*On videl v komnatu. "He saw into the room"

b. \*On videl pod stol. "He saw under the table"

The evidence for this structure in Russian is therefore weak. Some motional complements are possible with the impersonal predicator related to videt':

(31) Otsjuda vidno do morja. (lit) "From here is visible up to the sea" i.e. you can see to the sea from here.

The verb smotret' ("look") does take motional complements and a simple accusative object, but this does not really reveal anything about the structure of videt':

(32) a. On smotrel v okno. "He looked through (lit "into") the window"

b. On smotrel fil'm. (A) "He watched the film"

Further evidence might be sought in a phrase like:

(33) Komnata s vidom na more. (A) "A room with a view to the sea"

but this would not be significant, as komnata cannot in fact be a subject of videt', although similar nouns can be subjects of smotret' in a similar meaning:

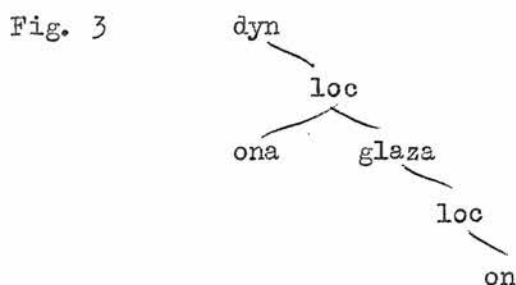
(34) a. Okna smotrajat vo dvor. (A) "The windows look out onto a courtyard"

b.\*Okna vidjat vo dvor.(A) "The windows see into a courtyard"

The other hypothesis I have in mind is similar to that I have suggested for vspomnit' ("remember"); it appears to be supported by sentences containing the dative of inalienable possession like:

(35) Ona brosilas' Jemu (D) v glaza.(A) (lit) "It threw itself into his eyes" i.e. it became visible to him"

This sentence would presumably have the structure:



It may be that the noun of sight is not only glaza ("eyes"), as a rather similar construction appears to be indicated with the noun vid ("view"), as in the sentence:

(36) On sporil s nim na vidu (L) u vsekh sotrudnikov (G) laboratorii. "He argued with him in the view of all the laboratory workers"

An argument against the deep-structure motionality of the object of videt' is provided also by locative sentences of the type discussed above (S2.4.2.):

(37) V etom (L) ja ne vizu ničego ploxogo. "I don't see anything wrong in that"

If the object of videt' were motional, one might expect the accusative case after v ("in") instead of the locative. Of course, the dative in passives of videt' also supports the motional nature

of the subject:

- (38) Mne (D) vidjatsja sero-zelenye mundiry. "I see the  
grey-green uniforms"

Evidence of a rather different, morphological kind may be found in the fact that videt' is a hyponym of vosprinimat' ("perceive"); the root of this verb is prinimat' ("take"), which is semantically a verb of motion to the subject or coming into possession.

It appears clear that the second analysis rests on the stronger evidence, yet it still seems unfortunate to assign a structure to the Russian verb different from that of the English verb. One solution might be to differentiate two different verbs within videt', one with motion to the subject and one with motion to the object, but even this would pose severe problems; if (39 a) and (39 b) represent the two different versions, what can (39 c) possibly denote as it contains both a dative and an accusative?

- (39) a. Mne (D) vidna derevnja. (N) "A village is visible to me"  
b. Ja (N) vižu derevnju. (A) "I (can) see a village"  
c. Mne (D) vidno derevnju. (A) (= a)

However, either of the hypotheses discussed here will suffice to produce a derived structure with the object dominated by dyn confirming the hypothesis of the accusative as the case of motion.

A fairly large number of other verbs also take the accusative and there is evidence that most of these are motional in some sense of the word. There is a class of verbs whose nominalisations use k + dative, an explicitly motional form, where the verb itself uses accusative (the nouns are all hyponyms of otnošenie "relation"); e.g. ljubit' ("love"), uvažat' ("respect"), nenavidet' ("hate") and

the non-verbal predicator žal' ("sorry (for)"), which is one of the few non-verbal elements in Russian capable of governing the accusative. One might suggest that these verbs simply involve projection of an emotion from the subject to the object, but this would be inconsistent with the stative character of these verbs and their association (or, with ljubit' ("love") the association of its suppletive pair nravit'sja) with the dative case:

- (40) a. Ja (N) ljublju etu p'esu.(A) "I like that play"  
 b. Eta p'esa (A) mne (D) nrauitsja. "That play pleases me"  
 (41) Mne (D) žal' vašu sestru.(A) "I am sorry for your sister"

However, I am totally ignorant of the possible structure of these verbs. A verb such as čitat' ("read") is difficult to analyse; obviously non-stative, but equally obviously non-causative, there is no general pattern of structure that it seems to fit into. Semantically, it seems to bear about the same relation to written language as slušat' ("listen to") does to spoken language. It is interesting that a synonym of čitat' bystro ("read quickly") is probegat' ("run through"), which is quite clearly motional. Pit' ("drink") and jest' ("eat") are analysable as prinimat' v sebja ("to take into oneself") and as such also have a relatively plausible analysis as motional. Not all of these and similar analyses are totally convincing, but they are intended only to suggest that an analysis in terms of motion might be on the right track.

A class of verbs remain which seem incompatible with an analysis in terms of motion - e.g. such verbs as imet' ("have"),

ispytyvat' ("experience"), vesit' ("weigh"). Perhaps the best way to deal with such verbs is simply to list them as exceptions. This seems a distressingly ad hoc way of dealing with difficult cases, but, as Lakoff 1970 has shown, it is more harmful for a linguistic theory to create new formal classes solely for the purpose of accounting for a few exceptions, than to mark a small number of items in the lexicon as exceptions to a given rule. The rule for the accusative as a case of motion is very general, given the abstract way in which we have treated the idea of motion. Eventually, given an elaboration of this theory of the general type to be attempted in S5., I would hope there might simply be a rule converting anything dominated uniquely by *dyn* into an accusative case. Given the indeterminacy inevitable in any account of this nature which does not give an explicit structure for every individual verb in the lexicon, the notion of 'transitive verb', traditionally used in the definition of the accusative, has been considerably sharpened, while the number of exceptions to this rule is not obviously high. This theory is obviously not perfect, but it is better than the others, such as they are.

#### 4.3.1.

The genitive case is generally said to be the adnominal case par excellence; e.g. "Wir können den adnominalen Gebrauch des G-s als die typische Äusserung dieses Kasus bezeichnen." (Jakobson 1936 p 66); "They (N + N constructions with the genitive) express an extraordinarily wide range of meanings, being marked by an exceptional semantic capacity and the ability to express the most varied relations between words." (Galkina-Fedoruk 1958 p 63). This obviously

contains a certain amount of truth, but it is not sufficient for an explicit and unified theory of the genitive, as it must be qualified in at least three respects. Firstly, other cases, with or without prepositions, are quite common with nouns, although not as common as the genitive. Secondly, the genitive is also frequently found in combination with verbs, quantifiers and adjectives. Thirdly, such an approach makes a faulty prediction insofar as it can be made explicit; it claims that, given a noun in combination with another noun not excluded from cooccurrent with the first, this noun will be able to appear in the genitive. This claim can quickly be shown to be incorrect; for there are very few constructions of adnominal genitive which can be reversed - which is the opposite of what the theory would predict; furthermore, there are none which can be reversed while preserving the same meaning. For example, reversal of the (a) phrases in the following examples leads to the ungrammatical (b) phrases:

(42) a. Kusok xleba (G) "A piece of bread"

b. \*Xleb kuska (G)

(43) a. Zvuk poezda (G) "The noise of a train"

b. \*Poezd zvuka (G)

(44) a. Čtenie knigi (G) "Reading of a book"

b. \*Kniga čtenija (G)

On the other hand, the reversal of the following (a) phrases leads to grammatical but semantically completely different (b) phrases:

(45) a. Zamečatel'naja krasota devuški (G) "The girl's remarkable beauty"

b. Devuška zamečatel'noj krasoty (G) "A girl of remarkable beauty"

- (46) a. Sosed otca.(G) "(My) father's neighbour"  
 b. Otec sosedu.(G) "(My) neighbour's father"
- (47) a. Rukovoditel' laboratorii.(G) "The director of the  
 laboratory"  
 b. Laboratorija rukovoditelja.(G) "The director's  
 laboratory"

Thus even if it were to be accepted that all meanings could be conveyed by the genitive, it would have to be discovered which element of all relations was susceptible to becoming a noun in the genitive. It would therefore appear that any definition of the genitive which talks in terms of an infinity of meanings or of simple adnominal modification must be wrong. For if any theory was found which was capable of generalising this infinity or relations and choosing a single element from each which was liable to be put in the genitive, this would be fully equivalent to finding a feature common to all relations with the genitive. This is all that I am trying to do, and, whichever way the problem of defining these constructions is approached, is a necessary precondition for an adequate theory of the genitive (or any other case for that matter).

To begin an analysis of the genitive, it is instructive to consider the so-called 'derived nominals', which take a genitive adjunct corresponding to either the subject or the object of the appropriate verb. The rules governing the choice of one or other element as genitive appear to be quite complex, but the facts are very roughly as follows: subjects of intransitive verbs, and verbs with neither accusative nor genitive complements can generally

become genitive adjuncts; objects of causative verbs and of some other genitive or accusative governing verbs can become genitive adjuncts. In addition, there is a special class of nominalisations, which I shall (clumsily) call 'thing'-nominalisations, which denote either the subject or the object of the verb; some accusative governing verbs have objective thing-nominalisations, while some instrumental-governing verbs have subjective thing-nominalisations. E.g.

- a. subjective genitive; vzniknovenie žizni. "The emergence of life"  
vlijanie otca. "(his) father's influence"
- b. objective genitive; ubijstvo prezidenta. "The killing of the president"  
bojazn' temnoty. "Fear of the dark"
- c. objective thing-genitive; jeho izobretenie. "His invention"  
soobščenie TASSa. "A communication of TASS"
- d. subjective thing-genitive; rukovodstvo organizacii. "The leadership of the organisation"  
pravlenie sojuza pisatelej. "the administration of the union of writers"

However, a system of rules based on such a classification would emerge with a large number of exceptions to each of the groups as postulated above. This would be what one would expect if the genitive was not in fact dependent on the superficial government of the verb, but on the underlying (or at least 'remote') structure of the sentences containing these verbs. In order to show this, it will be necessary to show briefly some of the implications of this



theory in relation to nominalisations to see what light it can throw on the question. Chomsky (1970), like many other people who have investigated nominalisations, starts from the assumption that all abstract nouns are derived from verbs and adjectives. He then goes on to voice doubts about this framework, based on the irregularity of derived nominals as opposed to gerunds; for instance, in the following examples, the gerunds (b) are possible in relation to the basic sentence (a), but the derived nominals (c) are not:

- (48) a. John is certain to win the prize.  
       b. John's being certain to win the prize.  
       c.\*John's certainty to win the prize.
- (49) a. John amused the children with his stories.  
       b. John's amusing the children with his stories.  
       c.\*John's amusement of the children with his stories.

Conversely there are some environments in which the derived nominals are possible, sometimes to the exclusion of the gerunds:

- (50) a. John's certainty that Bill will win the prize.  
       b. John's being certain that Bill will win the prize.
- (51) a. John's amusement at the children's antics.  
       b.\*John's amusing the children's antics.

On the basis of these doubts, Chomsky goes on to suggest a change in the theory such that verbs and their 'derived nominals' will be separately generated in the base, but that in the lexicon, they will share the same syntactic features, except for those of noun and verb. This is the 'lexicalist' approach as opposed to the 'transformationalist' approach.

A limitation of Chomsky's approach is that it only considers

two possible variants - either nouns are derived from verbs, or neither is derived from the other. But a suggestion which is already implicit in parts of this thesis (e.g. S2.4.5.) is that some superficial verbs are derived from underlying elements which may be superficially realised as abstract nouns. Thus, if be amused is derived from have amusement, and amuse from give amusement (i.e. "cause to have amusement"), then the syntactic data brought forward by Chomsky can be easily accounted for. This applies to a large number of the examples he suggest, e.g. interest, certainty, laughter, marriage, belief, doubt, etc. (Chomsky 1970 p 189). None of these are obviously examples of complex structures, and are therefore not obviously nominalisations. Chomsky's theory is therefore not the only one which can provide an adequate account of the data, and must therefore be further justified in order to be accepted as a better alternative than the transformationalist hypothesis. If the suggestion I have just made can also account for the behaviour of genitive adjuncts with such abstract nouns, then this will be strong evidence in its favour. A related observation is that Russian does not in any event have a direct correspondence to the English gerund, so nominalisations in Russian can be treated in a much more unified fashion than the English ones.

All this, of course, is not to deny that there are derived nominals at all. It appears that some of these are identical in form to the basic - non-derived - nominal. (The morphological derivedness or not of these forms seems to me irrelevant). For instance davit' ("press") may be periphrastically expressed as okazyvat' davlenie ("exert pressure"); as these two expressions

are synonymous, it seems to me impossible that the nominal could (semantico-syntactically) be derived from the verb. However, an expression such as davlenie atmosfery na zemlju ("the pressure of the atmosphere on the earth") must be a nominalisation derived from:

- (52) Atmosfera davit na zemlju. "The atmosphere presses on the earth"

Evidence for this is that one cannot treat it as basic; e.g.:

- (53)\*Oni okazili davlenie atmosfery na zemlju. "They exerted the pressure of the atmosphere on the earth"

The same may be said of a noun such as razdraženie ("irritation").

The following two sentences are synonymous:

- (54) a. On prišel v sostojanie (A) razdraženija. "He came into a state of irritation"  
b. On razdražilsja. "He became irritated"

In this use, razdraženie is non-derived; but it also has a use as a standard nominalisation, with a corresponding sentence:

- (55) a. Razdraženie nerva (G) vnešnim vozdejstviem.(I)  
"Irritation of a nerve by external stimulation"  
b. Nerv razdražilsja vnešnim vozdejstviem.(I) "The nerve was irritated by external stimulation"

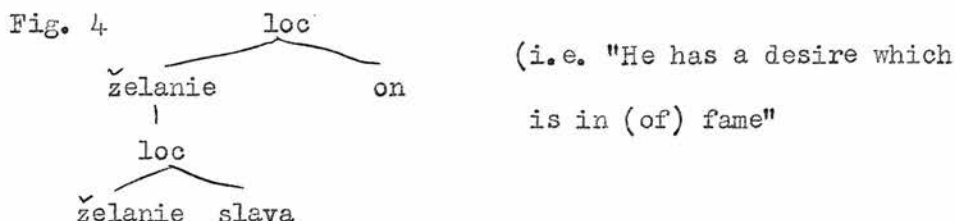
Although the surface morphology is against this at first sight, it does not really make much difference when there are in any case no categorial elements at the deepest level. The problem is, of course, complicated in that I have not specified at which stage of a derivation lexical insertion is accomplished. But I cannot envisage there being any difficulty in deriving some nouns independently of verbs. For there is no obvious derivative status for

what are generally called 'derived nouns'; the basic root could equally well be called non-categorial as verbal. This will suffice for this study.

A number of questions still need to be solved in the treatment of nominalisations; especially necessary is a solution to the question of the structure necessary to make a predication into a nominalisation. Consider an example of a sentence where one sort of nominalisation is possible:

(56) On želает slavy. (G) "He desires fame"

(56) might have a structure as in fig. 4.



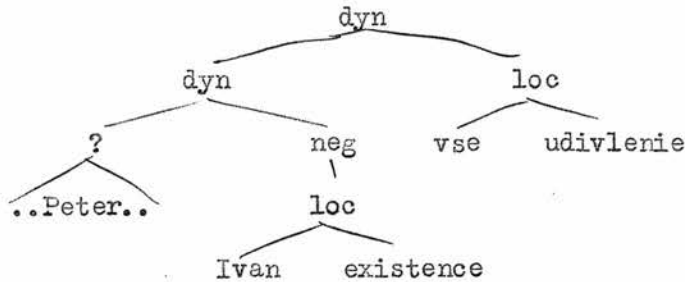
It is quite possible that slava ("fame") would not occur in this structure, but in a separate predication, which would then reduce to fig. 1 by a process such as Equi-NP-del. I shall not consider this possibility in detail, as this does not seem likely to have much effect on the rules for case. Fig. 1 has two N + N constructions associated with it; they are želanie slavy ("a desire for fame") and jego želanie ("his desire" - i.e. that which he desires). This latter phrase, being a thing-nominalisation, might be considered a conflation of the whole structure below and including the top occurrence of želanie. The first phrase cited would not under this analysis be a nominalisation at all, as the non-genitive noun is not a realisation of a complex structure. In this example, at least, nominalisation is the lexicalisation of a complete structure with a

noun at the head, surely intuitively a natural thing for a nominalisation to be. But this is not so obvious when we consider an action nominalisation; consider a sentence such as:

- (57) Ubijstvo Ivana (G) Petrom (I) udivilo vse. "Peter's murder of Ivan surprised everyone"

which might have a structure as in fig. 5

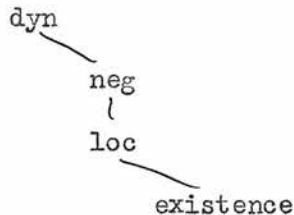
Fig. 5



Here there is no underlying element at the head of the nominalisation but a simple causative sentence. In fact (58) is an alternative to the nominalisation for this structure:

- (58) (to) Ůto Petr ubil Ivana ... "(the fact) that Peter killed Ivan ..."

What conditions the choice of a nominalisation rather than a complement I do not know, but taking that for granted, it is clear that the noun ubijstvo ("murder") is a lexicalisation of the subtree in fig. 6.



I shall assume that when this subtree is lexicalised, that is the condition for a nominalisation.

The situation of genitives is now somewhat clarified; its

connexion with subjects and objects would appear to suggest that raising may be involved also in the choice of the genitive. In order to see precisely what this entails, I shall consider an explicit (but no doubt wrong in details) procedure for raising elements and creating subjects and objects:

1. Given a 2-place predication, raise one of the arguments as right daughter of the element immediately dominating that predication. This process will go from bottom to top; if two such predications are dominated by a single element, it will go from right to left.
2. To form a subject, raise the rightmost daughter in the topmost predication above the topmost element.

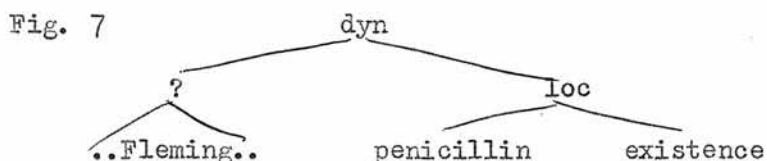
(N.B. The choice of which element to choose in (1) will be considered shortly.) Operation (1) must be optional (i.e. subject to certain unknown (to me) conditions), due to the possibility of long passives. The second operation must also be optional because of impersonal sentences, which have no subject; however, it would seem that this needs to be modified as (2) is obligatory if there are more than two non-relational elements dominated by the topmost relation.

Assuming these processes, it is now possible to define the genitive (at least partially) as the rightmost member of any relation. The condition on the optionality of operation (2) accounts for the fact that causative verbs do not generally have subjective genitive. Furthermore, given structures for stative verbs as in fig. 1., one can state that they do not have 'objective' genitives, as no object-forming process must be applied to make the genitive

possible. This therefore makes a noun such as ljubov' ("love"), which has only subjective genitive, perfectly regular in terms of other stative verbs. The condition on optionality of transformation (2) also accounts for the fact that when a predication with both members present must put the subject in the instrumental. This is because, if the 'subject' noun were raised, it would create a structure in which genitivisation was possible only after subjectivisation had taken place. But as the structure is a nominalisation, subjectivisation is impossible, and therefore the structure containing three non-relation elements (nominalised verb, object and subject) would be uninterpretable.

Let us consider also the 'thing-nominalisations'; fig. 7 is an approximate structure for:

(59) Izobretenie penicillina (G) Flemingom.(I) "The discovery of penicillin by Fleming"



(59) is derived from this structure perfectly regularly as an objective genitive; however, the thing-nominalisation is:

(60) (Penicillin - ) izobretenie Fleming.(G) "(Penicillin is) a discovery of Fleming"

The nominalisation in this sentence is probably identical to fig. 7 except that penicillin is replaced by an indefinite element or dummy.

It will be a condition on this that it cannot be raised, so operation (1) will not apply to the rightmost predication; on the 'left

cycle' Fleming will be raised as right daughter of dyn, and will therefore be put into the genitive case. Therefore, although this analysis does not explain why certain verbs have thing-nominalisations and others do not, it does explain how the procedure works.

Subjective 'thing-nominalisations' are a little more complex, and very much rarer; they occur mainly with instrumental-governing verbs of control. It is interesting that these verbs have nominalisations which are the exact converse of those of a normal causative verb. It is an interesting hypothesis that these verbs might in fact be best classified as passives, as their syntactic behaviour - i.e. nominalisation and government - corresponds to a pattern characteristic of passive verbs. It is not easy to see the notional sense in such a proposal, and it is possible that an easier explanation can be found. It was shown above (S3.1.) that these verbs can be analysed as a fairly complex structure of locatives which were not made explicit. It is equally possible that this structure, whatever it turns out to be, can account for the curious behaviour of these verbs with respect to nominalisations.

#### 4.3.2.

This analysis of the genitive has been arrived at, and so far only tested, on the basis of nominalisations. There are many other uses of the genitive; if these turn out to be compatible with the analysis just proposed, this will be strong confirmation of it. One type of genitive which is accounted for by this rule has already been dealt with because it is generally counted as a nominalisation - an analysis which I have contested; it is the genitive in želanie



slavy ("a desire for fame") which has the structure shown in fig. 1. This works for a number of such genitives - bojazn' temnoty ("fear of the darkness"), znanie teorii ("knowledge of the theory"). Another type of genitive fairly clearly covered by the theory is the genitive of possession, which alternates with overtly spatial constructions (cf. S2.5.). It has been shown to be non-subject of its predication, and therefore to be the right-most element in predications where it appears. Another genitive use which alternates in certain contexts with overtly locative expressions is the genitive of time; it is used only with dates, while hours, months, years, etc. are expressed in expressions with locative prepositions.

A particularly clear exemplification of the purely formal nature of the condition on genitivisation (i.e. formal as opposed to semantically determinate) is the comparative genitive:

(61) Sobaki umnee košek.(G) "Dogs are cleverer than cats"

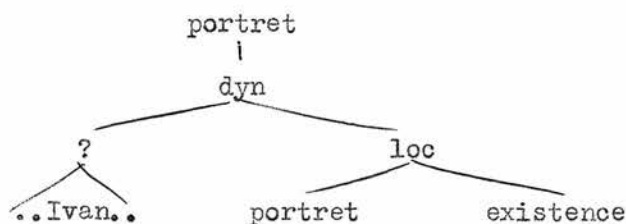
(62) Ščeki blednee obyknovenogo.(G) "(Your) cheeks are paler than usual"

In such constructions the final element of the comparison is put in the genitive as long as it is a part of speech capable of taking the correct morphological form (otherwise a variant using the word čem + nominative is used). Where the genitive can be used, the role the element has played in the compared sentence does not seem to make much difference; in (20), the genitive element was subject of the compared clause, in (21), it was an adverbial determiner. But with deletion of the redundant structure, a single element is left to the right of the main sentence, and this is genitivised

by our general rule.

A genitive construction about which I know very little, and shall therefore say very little, is that which occurs with quantifiers; it may, however, be the case that this is related fairly closely to the genitive which is found with the negative, a construction to which I shall give fairly close attention. But first it is interesting to see how the analysis I have just proposed deals with examples of complement ambiguity with the genitive; I shall take the example portret Ivanā ("Ivan's portrait"). The first sense in which it can be interpreted is as a possessive genitive "the portrait which Ivan has"; this poses no difficulties for this analysis. The second is as an objective genitive - portret is defined in dictionaries in terms of izobraženie ("representation"), and its objective genitive can be extended to portret, its hyponym, to make the above example a perfectly straightforward example of the objective genitive. The third sense is 'factitive' - i.e. "the portrait which Ivan painted"; this will have a structure as in fig. 8.

Fig. 8



This structure accounts for several possibilities; if there is a complete relative clause, it may either be passive or active; if not, one might emerge with portret, napisannyj Ivanom "the portrait painted by Ivan". This phrase results from the raising of

portret before it is deleted under identity; however, if portret is not raised, Ivan is then raised, is not deleted as it is not identical to anything else in the structure, and is therefore made genitive. I cannot at present account for the fact that the verbal substructure left stranded by this operation is also deleted; it may be connected with the extremely abstract nature of the 'existence' element.

#### 4.3.3.

Evidence has been presented to show that, in all genitive constructions which I understand well enough to analyse at least in part, the genitive is formed when it is the rightmost member of a predication. However, a serious problem still remains; in all of the environments in which the genitive can be formed, it is also possible to form another case, although not the same one in all environments. Thus the genitive in nominalisations alternates with the accusative in the basic constructions; the genitive in possessives alternates with u + genitive: the genitive in quantifier constructions alternates with ablative constructions, etc. The nature of these alternations also differs; genitive in nominalisations and accusative in basic verbal constructions are both obligatory; but the alternation with u + genitive is optional - i.e. it is not conditioned by purely syntactic matters (at least as the field of syntax is defined at present by most grammarians). It would obviously be desirable to find a general condition which would apply to all such alternations such that if that condition were fulfilled, genitive would be chosen in all of the alternations, and not

otherwise. A particularly problematic and much-discussed alternation has been the alternation of genitive and accusative after negated transitive verbs; it might be fruitful to consider this alternation from this fresh point of view.

The problem is quite simple to state; when a verb which normally governs the accusative is negated, an alternation is possible between accusative and genitive:<sup>3</sup> there are certain conditions under which one case is much more likely than the other, but in general the picture is confused - it has even been flatly stated that the problem is impossible to solve (Korn 1967 p 496). To give an indication of the variety of criteria accepted by many investigators as relevant to this problem, here is a list of some of the commoner ones:

A. Factors contributing towards accusative choice.

1. Negation is conveyed indirectly via a non-negated infinitive:

(63) Politiki ne v silax ponjat' patriotizm (A) sovetских  
ljudelj. "The politicians are unable to understand the  
patriotism of Soviet people"

(64) On byl ne v silax otvesti sijajuščix glaz (G) ot svoego  
kapitana. "He was unable to take his shining eyes off  
his captain"

(cf. Restan 1960, Ravic 1971, Davison 1967, Borrás and Christian 1971, Korn 1967, Sajkiev 1955)

2. The sentence is imperative or interrogative:

(65) Ne rešajte etot vopros (A) sami. "Don't decide that  
question yourselves"

(66) Černil (G) ne oprokin'te. "Don't upset the inkwell"

(cf. Borrás and Christian 1971, Ravic 1971, Restan 1960, Sajkiev 1955)

3. The accusative is followed by a predicative instrumental (or perhaps just followed by any nominal complement):

(67) On ne ščital Rossiju (A) opasnym sopernikom. "He did not consider Russian a dangerous rival"

(cf. Borrás and Christian 1971, Davison 1967, Ravic 1971, Restan 1960)

4. The verb is perfective:

(68) My ne narušim etot mir. (A) "We will not destroy this peace"

(69) Ona byla ne v silax sderžat' rydanijsa. (G) "She was unable to hold back her sobbing"

(cf. Magner 1955, Ravic 1971, Restan 1960)

5. The noun is an animate noun of the -a declension:

(70) Ja ne ljublju Mašu. (A) "I don't like Masha"

(71) Nikakoj Maši (G) ja ne znaju. "I don't know any Masha"

(cf. Borrás and Christian 1971, Davison 1967, Ravic 1971, Restan 1960, Sajkiev 1955)

6. Verb and object are inverted:

(72) Sestru (A) on ne vstretil na ulice. "His sister he did not meet on the street"

(73) Griški (G) ona počti ne videla. "She hardly saw Grishka"

B. Factors contributing towards genitive choice.

1. Used after gerunds and participles:

(74) ... ne sčitaja čuguna. (G) "... not counting the cast iron"

(75) Ne ponižaja golos (A), on zagovoril po-latyni. "Without lowering his voice he started speaking in Latin"

(cf. Borrás and Christian 1971, Davison 1967, Ravic 1971, Restan 1960, Uglitsky 1956)

2. Used with ne imet' ("not to have") (and perhaps more generally with verbs denying the existence of the object):

(76) On nikogda ne imel deneg. (G) "He has never had any money"

(77) Ix pozicija ne imeet rešajuščee značenie (A) dlja bezopasnosti SŠA. "Their position does not have a decisive significance for the security of the USA"

(cf. Borrás and Christian 1971, Davison 1967, Ravic 1971, Restan 1960)

3. Used when the negation is reinforced by an intensifier:

(78) On ne xotel čitat' nikakix knig. (G) "He didn't want to read any books"

(cf. Borrás and Christian 1971, Davison 1967, Korn 1967, Magner 1955, Ravic 1971, Restan 1960)

4. The noun is abstract:

(79) On ne cenil krasoty. (G) "He did not value beauty"

(80) Nel'zja ne priznat' jego pravotu. (A) "One cannot but admit his correctness"

(cf. Borrás and Christian 1971, Dahl 1969, Ravic 1971)

This is only a selection of the commoner criteria proposed, taking no account of the inherent plausibility of these or others. Even with this small number of factors, it is quite clear that an exhaustive analysis of these would be quite prohibitively complex,

as one would have to consider the relative intensity with which a particular criterion was to apply, and the choice would be made more complex by the fact that many of these criteria could easily occur together; what, for instance, could one say about an abstract noun reinforced by an intensifier inverted in front of a perfective verb which was followed by a predicative instrumental? One of the faults of nearly all of the studies carried out on this problem is that they have approached it from a purely statistical viewpoint; this has meant that there has been little searching for an underlying unity between the superficial variety of all the criteria proposed. This is safe enough when there is some overwhelming statistical support for any criterion, but of the criteria I have repeated above, only B2 and B3 have this sort of statistical support. Roughly 40 criteria have been proposed altogether in the literature quoted, and quite obviously, if some combinations of these were proposed, the field might become much less confused; one would find, for instance, that a number of accusative criteria would look much more convincing if examples with intensive negation were excluded - i.e. criteria could and should be placed in a hierarchy of importance in order to produce much more determinate analyses. But two doubtful points would remain even if such an operation were carried out on the criteria produced so far. Firstly, there appears to be a contextual influence on the choice of case in that sentences in isolation seem to have a choice whereas in context there is usually a single choice; this would also explain why so many analyses have been so fruitless, in that they have not considered units higher than the sentence. Secondly, there appears to be

a certain amount of redundancy in some of the criteria; for example, word order and emphasis are closely interrelated (cf. Halliday 1967, Isačenko 1967) - this might suggest some affinity between A6 and B3 above.

The most likely candidate for choice of contextual criterion is the theme/rheme, given/new distinction familiar in Prague school work (e.g. Firbas 1966) and continued and developed in several places (e.g. Halliday 1967). I have at present no means of investigating the structure of intonation in Russian with respect to this construction, so I shall have to approximate to an adequate solution by using contextual clues to decide what is to be accounted given or new, and by assuming that in the absence of direct evidence to the contrary, focus is on the end of each clause. The indeterminacy that such an analysis is bound to suffer from in some degree is shown by the special meaning that 'given' and 'new' are given in this theory:

"What is focal is 'new' information; not in the sense that it cannot have been previously mentioned, although it is often the case that it has not been, but in the sense that the speaker presents it as not being recoverable from the preceding discourse" (Halliday 1967 p 204)

However, a close enough approximation can be obtained purely on the basis of context to give quite a high degree of plausibility to a theory.

Direct objects which are given are generally put in the genitive after a negated verb, as long as they are not inverted:



- (81) Ona sprosila jęgo, skol'ko jęmu let, no on počęmu-to ne ponjal voprosa. (G) "She asked him how old he was, but for some reason he didn't understand the question"
- (82) Čoxov burknul v otvet čto-to neponjatnoe, ne očęn' dovol'nyj obraščęnięm k nemu na 'ty' ... No Vorobejcev kak budto i ne zametil x murogo vyražęnija (G) lica Čoxova. "Choxov barked something incomprehensible in reply, not very pleased with being addressed familiarly ... But Vorobejcev didn't even seem to notice the sullen expression on Choxov's face"
- (83) On snova vzjal jeje ruku i, pocelovav, ostavil v svojej. Sofja Pavlovna ruki (G) ne otnjala, no suxo skazala .... "He took her hand again, and, kissing it, left it in his. Sofja Pavlovna did not take it away, but said dryly ..."
- (84) On prines iz Moskvy butylku vodki i butylku vina, no on ješčę ne pil vodki. (G) "He brought back from Moscow a bottle of vodka and a bottle of wine, but he hasn't drunk the vodka yet"

Restan (1960) and Davison (1967) mention the fact that eto is nearly always in the genitive, whether it is used as an adjective or a noun. An analysis in terms of givenness would assign the genitive to eto ("this") in nearly all cases:

- (85) Oni byli stjazaťateljami, no ne skryvali etogo. (G) "They were acquisitive, but did not hide this"
- (86) Ja ne napisal etogo pis'ma. (G) "I didn't write that letter"

Preposed objects which are also new are generally in the accusative; according to the standard theory of functional sentence perspective, new elements come at the end in the unmarked form of sentences, so these accusatives are the marked form.

(87) a. Vzryv (A) on ne mog ne slyšat'. "The explosion he couldn't help hearing"

b. On ne mog ne slyšat' vzryva.(G) "He couldn't help hearing the explosion"

(88) a. Cennost' (A) jeho nel'zja ne otmetit'. "Its value one cannot but mention"

b. Nel'zja ne otmetit' jeho cennosti.(G) "One cannot but mention its value"

(89) Očki (A) on ne nosit. "Spectacles he doesn't wear"

(90) Sestru (A) on ne vstretil na ulice. "His sister he didn't meet on the street"

These two positions - normal position and given, and preposed position and new - are fairly clear cases. The rules do not say anything about preposed given objects or postposed new ones. According to the data I have examined, a large number of these examples can be handled simply by the concrete - abstract distinction frequently mentioned in the literature.

(91) Ja ne ljublju lingvističeskie knigi.(A) "I don't like linguistics books"

(92) Ivan ne ponimaet svoju sestru.(A) "Ivan doesn't understand his sister"

(93) Ja dve nedeli ne pisal vam pis'mo.(A) "I haven't written you a letter for two weeks"

- (94) On ne možet terpet' licemerija. (G) "He can't stand hypocrisy"
- (95) On ne cenil krasoty. (G) "He didn't value beauty"
- (96) Kakoj-to čelovek byl ubit kem-to na etom meste; no ubijstva (G) nikto ne videl. "Some man was killed by someone on that spot; but the killing nobody saw"
- (97) Ona ulybnulas' jemu, no ulybki (G) on ne zametil. "she smiled to him, but he didn't notice the smile"
- (98) Kalitin vremja ot vremeni pisal stat'i i posylal ix v redakcii; no stat'i (A) ne pečatali. "Kalitin occasionally wrote articles and sent them to journals; but the articles were not printed"
- (99) On nikogda ne rabotaet v biblioteke; eto zdanie (A) on očen' ne ljubit. "He never works in the library; he very much doesn't like this building"

The genitive with emphatic negative is one of the most regular of all phenomena connected with negated verbs; if the accusative is associated, as the case of 'new' elements, with a higher level of stress than the genitive, which is associated with 'given' elements, it might be expected that the heavily-stressed nominal phrases used in intensive negation would be associated with the accusative; and this expectation would be entirely false. However, this apparent contradiction is not at all serious; in an intensively negated NP, the nominal head is nearly always given; the negation is the element that is contrastive, and therefore new, and it is this that accounts for the heavy stress on the NP. Thus in (100):

- (100) Nikakix knig on vam ne dast. "He won't give you any books"

there must have been some mention (or action equivalent thereto) of the fact that the addressee wants some books from him. The whole sentence, minus negation, is therefore given, and only the negation is contrastive.

Only some of the criteria relevant to the choice of case have been considered here; a whole host of problems arises with various facts connected with presuppositions - for example imet' and polučat' ("have" and "receive") always take the genitive when negated, and this may be connected with a presupposition of non-existence. Interrogative, imperative and conditional sentences also cause problems with presuppositions.<sup>4</sup> However, it would not be fruitful to the thread of the argument to delve too deeply into these areas; the important thing is that three important conditions have been found for the choice in indicative sentences - word-order, given/new and abstract/concrete. Such facts also appear to be relevant in the choice of a raising operation; when a concrete and an abstract noun are put together in an underlying predication, the unmarked choice of the element to be raised is the concrete one, because concrete elements do not make up verbs, while abstract elements do. The nominative and accusative, as the normal cases of subject and object in Russian are therefore typically concrete; it has been shown, however, that the genitive object-noun is typically abstract. The nominative noun is also typically given, as in unmarked form it is placed at the beginning of the sentence - the typical position for maximally given elements. The accusative, as I have been at pains to show, is generally new, while the genitive is given.

The following pattern emerges:

|            |           |   |  |
|------------|-----------|---|--|
| Nominative | +Given    | +Concrete   |  |
| Accusative | -Given    | +Concrete   |  |
| Genitive   | +Given    | -Concrete   |  |
| -Given     | -Concrete | $\left\{ \begin{array}{ll} \text{Preposed} & \text{Accusative} \\ \text{Postposed} & \text{Genitive} \end{array} \right.$ |  |

This is not a surprising pattern; a typical SVO sentence structure and a typical given - new information structure fit together so as to make the subject typically given and the object typically new; deviations from this pattern in terms of case are in a general way parallel to deviations in terms of information structure. Preposed concrete given nouns can be either subject or object, and are therefore put in the accusative, which has a close affinity to the nominative in terms of morphological structure; when they are abstract, they are in the genitive (as long as they are also given) because preposed nouns are typically concrete. Postposed given nouns are genitive because what is given is usually preposed. But what effect does the negative element have on this choice in purely formal terms - why does the addition of the neg element demand this choice to be made? Consider the path of derivation of a negative sentence; subject-raising will occur, raising the subject above all other elements; then the rule of neg-lowering (cf. R.Lakoff 1968 p 110) occurs, moving the neg element to the front of the subjectless predication; note that this again creates a structure which has two non-relational element dominated by a single predication - and consequently the subjectivisation transformation is

again applicable; but it cannot apply as there is already an element in the subject slot. The element which cannot be raised is therefore subject to the rules of genitivisation according to the conditions shown above.

A similar process might apply in the example of nominalisations. A nominalisation is a subjectless, non-finite verb, which is used as an element in some other set of relations. The element which on the surface is in the genitive would have been subject of a form of that verb had it been capable of taking one; i.e. here too, an element which would have become subject by the operation of subject-raising is prevented from doing so by extrinsic factors (probably the fact that the nominalisation is dominated by something else). It is interesting, as a sidelight, that Ravic (1971) claims that negated impersonal verbs do not take genitive object:

(101) Sestru (A) ne tošnilo. "(my) sister (it) didn't sicken"

(102) Ni odnu ulicu (A) ne zamelo snegom. "Not one street  
(it) didn't block with snow"

Although it is not particularly clear how these verbs are generated an answer that works is that operation 2 (in S4.3.1.) is only optional for these verbs; consequently, the operation of subjectivisation is not blocked because of the structure dominating the predication, but simply because the rule is optional. There is therefore no reason why the object noun should be made genitive, even when, as in (102), it is marked with emphatic negation.

I have not yet investigated the use of prepositions and cases, so for the moment I shall ignore the question of the alternation

of the genitive with prepositional constructions. Even if a general principle for alternations is not worked out, the fact that there is a rule which exhaustively covers the uses of the genitive, insofar as they are understood, and that alternation after negated verbs and in nominalisations has been partially worked out, is not unimpressive.

## Footnotes to Chapter 4.

- 1 I have not yet specified the operation of case introduction in any detail, but whatever it is, this statement will be valid in relation to it.
- 2 It is not easy to decide precisely what is an exception to this because of a certain indeterminacy in the notion of causative. Dosadit' ("annoy") may be said to be an exception because it has a corresponding non-causative verb, and because it denotes a change of state in the object. But pomoč' ("help") is not an exception (although it governs the dative) because it has no non-causative equivalent in Russian (not even a passive). It can be analysed as dat' pomošč' ("give help") which also governs the dative. Unfortunately, dosadit' can also be analysed as pričinjat' dosadu ("cause annoyance"), which also governs the dative of the person annoyed. Perhaps this is the reason why a dative is possible, as most of the causative examples given above do not have such a ready paraphrase with the dative.
- 3 In fact this alternation applies to any accusative complement, even an adverbial one of space or time; thus:
  - a. On sidel celyj čas. (A) "He sat for a whole hour"
  - b. On ne sidel i času. (G) "He didn't even sit for an hour"
  - c. On stupil šag. (A) "He took a step"
  - d. On i šagu (G) ne stupil. "He didn't even take a step"

To my knowledge nobody has investigated whether this use of the genitive follows the same regularities as its use with



strongly governed objects.

4. I have not investigated these constructions in detail, but some data from negative imperative sentences should be enough to give some idea of the complexity of the problem. When the imperative is of a purely general type, there seems to be more choice of case than in other constructions:

- a. Ne čítajte etot roman. (A)  
 b. Ne čítajte etogo romana. (G) "Don't read that novel"

However, when more context is provided, this often makes one case preferable. For instance in the type of command which has a temporal qualification, the accusative is usual; one might hypothesise that this is because there is the positive presupposition that the negative command does not apply at other times:

- c. Ne privodite sestru (A) segodnja večerom. "Don't bring your sister this evening"  
 d. On ne zametil cvet (A) neba poka on ne leg na travu. "He didn't notice the colour of the sky until he lay on the grass"  
 e. Ne pišite jemu pis'mo (A) do sledujuščej nedeli. "Don't write him a letter before next week"

In addition, imperatives directed against actions already committed generally take the accusative, presumably also because there is the positive presupposition that they have, indeed already been done:

- f. Ne čítaj etot roman (A) ! Skol'ko raz ja zapreščal tebe čítat' takie knigi! "Don't read that book! How often have

I forbidden you to read such books!"

g. Kak vam ne stydno! Ne razvodite pessimizm (A)! "Aren't  
you ashamed of yourself! Don't spread pessimism!"

Although not mandatory, the clear implication of (f) and (g)  
is that something has already been done.

It seems that some of these presuppositional tendencies  
also apply to interrogative and conditional sentences.

## 5.1.

In the preceding three chapters, the cases of Russian have each been examined in turn, and a tentative unified description has been proposed for each of them. The descriptions proposed rest very heavily on the theoretical basis laid out in chapter 1, and they would be virtually impossible, taken as a group, if any other theoretical framework had been proposed. Thus, for instance, none of the cases could have been described as they have been had not the approach been a 'generative semantic', more specifically a 'lexical decompositionist' account of Russian; the accusative, for example, is described in terms of the feature of 'motion', which is sometimes only evident when a verb is broken down into its basic semantic components. (S4.2.) The most idiosyncratic proposal made in this thesis - that a mere two elements are required as relators in the whole grammar, and that these two relational elements - location and motion - are best represented as two-place predicators - is amply supported by the description of the cases; negatively, it is shown that the only two cases with a direct correspondence to an underlying relator correspond to location and motion respectively, and therefore that there is no such direct evidence for another relator: more positively, it is shown that instrumental and genitive, which are more formal (as opposed to semantic) cases than the locative or accusative, are definable in terms of their spatial position with respect to either of the basic relators. Any further relator would therefore have to be associated with a 'subject' in the instrumental and a 'non-subject' in the genitive. This is so unlikely as to border on the

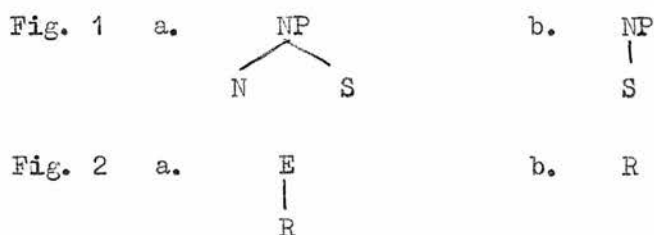
impossible; it would therefore seem that the introduction of a third relator would sabotage the descriptions of the genitive and instrumental proposed here, and is therefore to be avoided unless absolutely necessary. The fruitfulness of the hypothesis that there are only two relators provides further support for the claim that the grammar needs to be generative semantic, as the descriptions of any verbal (and therefore relational) lexical item must of necessity be highly abstract if they are to be couched solely in terms of motion and location.

The theory makes possible the unified descriptions of cases, and the descriptions justify the theory insofar as they are probably the least vague approach to Russian cases which has managed to describe them all in terms of a single theory. As was shown in chapter 1, past descriptions of Russian cases have either been very general in import and extremely vague in formulation (Jakobson) or highly specific in formulation and totally insignificant from a theoretical point of view (most of the Soviet approaches). This thesis has aimed to avoid both of these pitfalls to as great an extent as possible, although as I have already stressed, (S1.4.5.3.) a certain amount of indeterminacy is inevitable simply because of the incompleteness of the analysis: I have not investigated all classes of verbs, nor all possible underlying configurations, nor all case expressions, nor all types of sentences, and the omission is bound to tell on the accuracy of the analysis. It is therefore clearly impracticable for me to attempt to produce a valid set of rules for underlying structures. I shall concentrate instead on tying up some loose ends as regards the type of transformational processes

required in a model such as this, especially those which have already been referred to in some vague way in any of the preceding chapters. I do not intend to devote much attention to the formalism of transformations in a model such as this, nor to such interesting problems as where lexical insertion takes place in a derivation; I hope that the lack of explicitness in such questions will not materially affect the validity of the discussions to follow.

## 5.2.

Little discussion has been devoted in this thesis to the shape of the dependency trees in which syntactic structures are represented: in general their relationship to the more familiar constituent structure trees of transformational grammar is fairly straightforward, and the same choices as to representation of constructions must be made. For instance, sentential complements may be represented in constituent structure trees in either of the ways shown in fig. 1, and the dependency trees of fig. 2 show the same possibilities within the theory I have put forward:



(N.B. E = 'element', R = 'relator')

I do not intend to go into the arguments for and against these structures (but see Rosenbaum 1967, Kiparsky and Kiparsky 1970, Lakoff 1968, Comrie 1971, S2.2.); it suffices that the (b) version, which has been used throughout this thesis where there has been a

complement structure, has evidence in favour of it independently of its position within the framework I have put forward. In fact this position gains additional support purely within this theory, as the relative clause structure used throughout this thesis has been that of (2a); it is interesting that there does not appear to be a difference within these dependency structures directly parallel to the difference between the various proposals for the relative clause possible within constituent structure models. There is therefore not much choice but to accept this structure, unless, of course, one accepts an analysis of relative clauses as conjoined to the main sentence (e.g. as in Annear Thompson 1971). For the purposes of this thesis, the analyses used throughout for complementation and relativisation may be considered satisfactory.

It was suggested in S2.4.5. that a sort of reduced relative could be used for some constructions. However, the further suggestion that this reduced form of the relative might occur purely in derived structure seems to me to be a much more desirable possibility. It will be no problem at all to devise a system of rules to derive the reduced form from the full relative form, and most of these rules will probably be needed anyway. The general shape of the trees which are used in this model is consequently extremely simple in general, although when particular elements and relations are inserted in these trees, there will of course be many additional restrictions on the cooccurrence of elements; for instance, the relator *dyn* cannot dominate individual elements but must dominate complete predications. However, I have not yet established many of these restrictions.

## 5.3.

Obviously the most important transformational process in the analyses of the cases is the raising transformation. None of the particular analyses of cases which have been advanced in this thesis could have been arrived at had there been a constraint excluding the raising transformation. Furthermore, a condition generally implicit in what has been said about the model is that no relation dominates more than one non-relational element at the point at which case introduction occurs. This is a condition which makes it inevitable that raising should be a transformation, as in a model such as this, there is no other way except deletion of removing an element from a predication, and it should be clear that deletion of every second element would make mincemeat of any underlying structure. A formulation of raising and subject-forming was given in S4.3.1., and I reproduce it here:

1. Given a 2-place predication, raise one of the arguments as right daughter of the element immediately dominating that predication. This process will go from bottom to top; if two such predications are dominated by a single element, it will go from right to left.
2. To form a subject, raise the rightmost daughter in the topmost predication above the topmost element.

These formulations will need to be modified somewhat; for instance, it is not clear that it must be a 2-place predication that is in question in (1); for it is possible that a predication with only one realised argument may have this argument raised; for example,

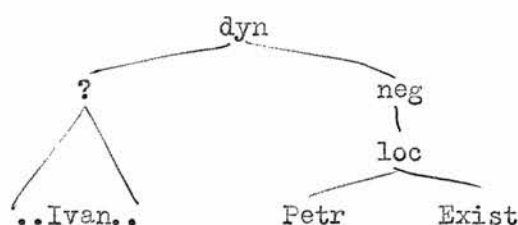
the average unqualified instrumental of agent which alternates with the nominative subject of a sentence seems to be derived from an indefinite predication in which it alone is realised as a specific element; consider:

(1) a. Ivan ubil Petra. "Ivan killed Peter"

b. Petr byl ubit Ivanom.(I) "Peter was killed by Ivan"

Both of these sentences will have the same underlying structure which may be represented as something like fig. 3:

Fig. 3



Rule 1 will convert this to fig. 4, which could be converted to the structure immediately underlying (1 b) by an application of rule 2. If, however, rule 1 is reapplied to produce fig. 5, then (1 a) will result:

Fig. 4

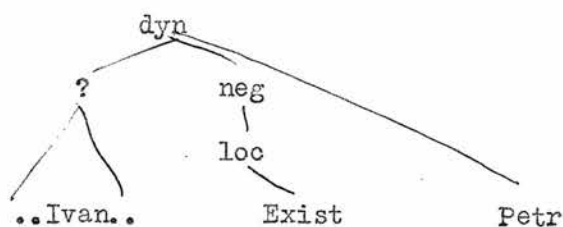
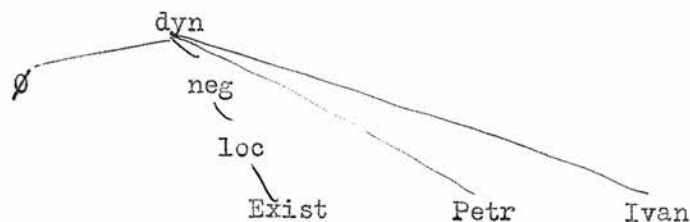


Fig. 5



When rule 2 has applied for figs. 4 & 5, figs. 6 & 7 result:



Fig. 6

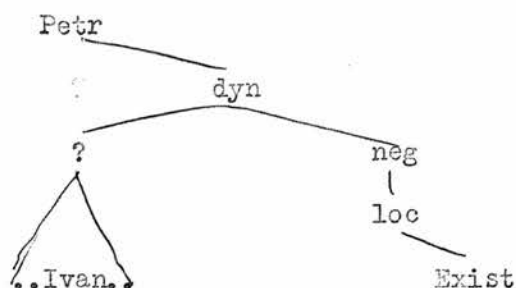
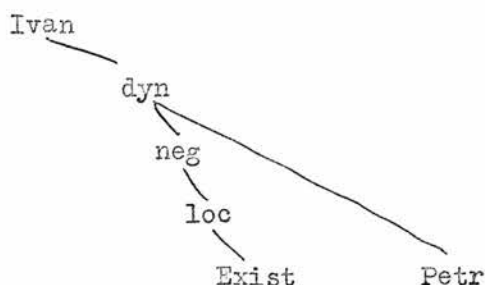


Fig. 7



The nouns that are undominated are automatically put into the nominative; in fig. 6, Ivan is put into the instrumental by the rule on 'subjects' of relations.<sup>1</sup> In fig. 7, Petr is put into the accusative as it is directly dominated by dyn. I have not made explicit the procedure for lexicalising the various forms of the verb, but this is a purely technical manoeuvre, and should pose no more problems than in other theories.

These operations show the sense in the condition on right-left operation of the raising rule, as it is precisely this condition that predicts that elements from the 'subject' side of the dyn predication in structures like that of fig. 3 cannot be put in the accusative; they must either remain in their underlying structure position, or else be subjectivised. If the noun in the unspecified predication had been pulja ("bullet") instead of Ivan, an impersonal sentence would have been possible - i.e. the tree corresponding to fig. 4 could have avoided the operation of rule 2, and

(2) would have resulted:

(2) Petra ubilo pulje. (I) "Peter was killed by a bullet"

In this sentence the verb is a neuter third person form characteristic of impersonal sentences (for conditions on these cf.

Galkina-Fedoruk 1958, Saumjan 1965). Impersonal sentences of this sort depend on conditions on both of the nouns and on the verb.

I am not sure how one would formalise these conditions to prevent rule 2 operating (or a second occurrence of rule 1), but at least the nature of the operation prevented is clear. That this variety of sentences may be formed from an underlying structure such as that in fig. 3 shows that the condition in rule 1 is that the predication be 2-place is too restrictive, and it can therefore be generalised to include any predication.

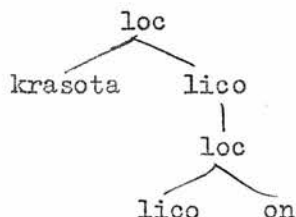
However, there is reason to think that rule 1 is not adequate to account for all occurrences of argument promotion. It was claimed in S3.1. that (3 a) was derived from (3 b):

(3) a. On krasiv licom. (I) "He is handsome in the face"

b. Lico u nego krasivo. "His face is handsome"

The structure for (3 b) might be as in fig. 8:

Fig. 8



i.e. "the face which is  
his has beauty"

(for the use of the noun

krasota ("beauty") cf.

S2.4.2.)

Rule 1 does not provide any way in which the animate noun in the relative clause could be raised to a position from which it could

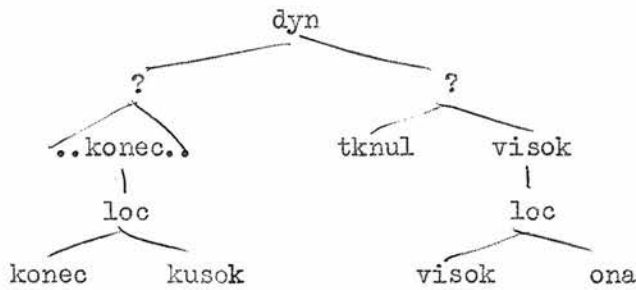
be made subject. On in fig. 8 could be raised so that it was dependent on lico by a regular application of rule 1, but as lico is not a predication, it cannot apply again to make on dependent on the topmost loc, from which it could be made subject. Two possible solutions make themselves evident; rule 1 could be amended so that it refers not to predications but to any element which dominates one or more elements; alternatively, an 'extraposition' rule could be added for relative clauses, (cf. §2.7.) extracting them from below their determined elements either in full or reduced form. The full form would be what are superficially extraposed relative clauses, while the reduced form would serve for subjectivisation of one of the elements within it. This latter possibility seems by far the less likely, as relative extraposition is generally a late transformation (cf. Ross 1969), certainly much later than any raising transformations. The first proposal, although it will need constraints to make it less powerful, seems much more likely. It may be some evidence in support of this view that the order in which such relative clauses must be raised is the same as that in which simple elements must be raised - i.e. that stated in rule 1. Consider, for instance, a sentence such as:

- (4) Kusok ramy tknul jeje ostrym koncom v visok. "A piece  
of the frame poked her with its sharp end in the temple"

This has two occurrences of inalienable possession - the nominative kusok ("piece") is the inalienable possessor of the instrumental konec ("end"), while the accusative jeje ("her") is the inalienable possessor of the accusative visok ("temple") occurring with the

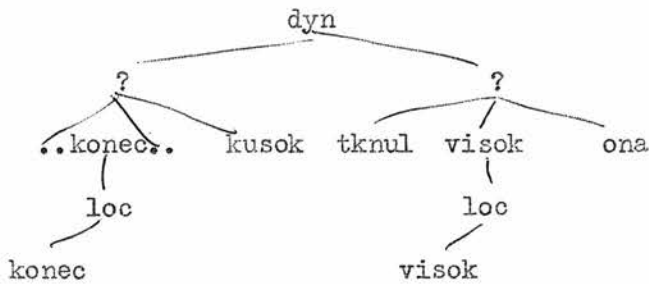
preposition y ("into"). A very approximate structure for the underlying form of this sentences might be as in fig. 9:

Fig. 9



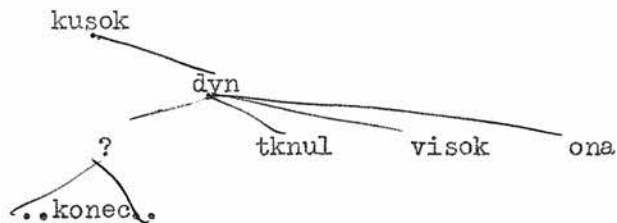
Two occurrences each of rule 1 would bring us to fig. 10:

Fig. 10



In order to get ona into its accusative jeje, and to retain kusok as nominative, these two elements would have to be raised from right to left, just as rule 1 states; with this done, and rule 2 also applied, and with deletion of redundant elements (a process to be considered in S5.4.), the final structure of this should look something like fig. 11.

Fig. 11



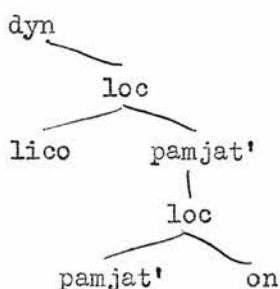
Two things go against this proposal; firstly the argument that has just been brought forward concerns only the order in which the rules apply rather than the nature of the rules themselves. It

would be very easy to make the ordering argument apply to more than the one rule, and in fact it seems fairly unlikely that such statements should occur with regard only to one rule; when transformationalists talk about cyclic ordering of rules, for instance, they talk about it in relation to whole classes of rules, not individual rules. If, therefore, evidence were produced that the extraposition argument was able to produce correct structures where the raising argument was not, this would be fairly conclusive evidence in favour of the former. The second thing is such evidence; it will be remembered that in S2.7. evidence was presented to show the similarity in underlying structure of such sentences as:

- (5) a. On vspomnil jeje lico. "He remembered her face"  
 b. Jemu (D) vspomnilos' jeje lico.  
 c. Jeje lico prišlo jemu (D) na pamjat'. "Her face came to his memory"

These could approximately be represented as:

Fig. 12



Here we are especially concerned with (5 a); how is it that on ("he") can be raised to end up on the right of lico? Clearly if it is raised to dependence on the higher loc by the modified rule 1 there is still no guarantee that it will end up as subject. In fact, if the correct structure is to result, rule 1 will need to

be modified to allow two applications of rule 1 to the same predication, and further specified to ensure that in fig. 12, lico is the first element to be raised from the higher loc, and on the next. This possibility is somewhat far-fetched. However, if an order were established in which rule 1 applied first, as many times as necessary, then a rule applied which took elements out of relative clauses, then rule 2 applied, the correct structures could be derived from structures such as fig. 12 and fig. 9. However, it is probably not the whole relative predication which is removed in this operation, which must therefore be different from the later extraposition transformation. It is quite likely that a predication subordinate to an element containing only a relator and the same element could be deleted on grounds of redundancy, so it is likely that this is what happens in structures such as these. With the modifications suggested above, rule 1 and the new rule will look rather as follows:

- 1.a. Given a predication, raise one of the arguments  
as right daughter of the element immediately  
dominating that predication.
- b. Given a relative clause denoting inalienable  
possession, raise the possessor element to be right  
daughter of the topmost relator in the sentence.

These processes to apply from bottom to top; if two such predications are on the same level of depth, the rules apply from right to left.

These rules will apply in order, (1 a) applying as many times as necessary, followed by (1 b) applying as many times as necessary.

For the moment both of these rules may be described as optional. A problem which would arise in a more exhaustive analysis is that (1 b) must be upward bounded, insofar as it allows in its present form for any inalienable possessor at any depth of embedding to be raised over any number of predications. It is not easy to see how this could be formalised at the present moment. It is also interesting that (1 b) applies only in predications of inalienable possession; the status of this phenomenon will be briefly considered in §5.5.

#### 5.4.

Interesting formal problems also arise with any attempt at a definition of prepositions; in previous chapters cases have been defined irrespective of their occurrence alone or with a preposition. The very fact that one can talk unambiguously about prepositions as a separate word class, that they have unique formal characteristics, seems to suggest that there ought to be some means of demonstrating which derived structures are going to be realised with the aid of a preposition and which are not. Of course, it would probably be possible to specify specific environments in which prepositions could be inserted in their lexical entries, or in the lexical entries of other elements which condition the choice, but this would not be a very satisfactory procedure, as it would demand a vast amount of reduplication of information, and would still not help us in any definition of prepositions as a class. There have been several instances in this thesis where an alternation between a simple case and a prepositional construction has

been mentioned; it would be interesting if some feature common to all of these alternations could be found.

The most extensive discussion of an alternation of this sort was in chapter 3, where it was suggested that a partial solution of the problem of differentiating the instrumental from ablative prepositions was to be found in the fact that constructions with ablative prepositions were dependent on some element in them being deleted under identity with another element. It was also shown in the same place that this solution was not adequate in a number of examples, but that even these indicated that deletion had some connection with the problem. It was suggested that the deletion proposal did not account adequately for sentences like:

(6) My vernulis' iz-za doždja. "We returned because of the rain"

(7) Iz-za šuma ničego ne slyšno. "Because of the noise, nothing is audible"

It was automatically assumed there that they would have the indeterminate 'subject' predication found in many agentive sentences - i.e. they would have a structure as in fig. 13:

Fig. 13



However, it was also suggested that these were nominalisations in some sort of existential predication - i.e. they can be paraphrased as: "The fact that there was rain/noise caused ....". This is as

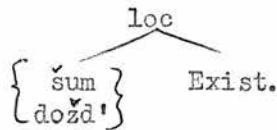


distinct from a truly indeterminate 'subject' predication in a sentence such as:

(8) On byl ubit tovariščem. "He was killed by a comrade"

There is no paraphrase here in terms of "The fact that there was a comrade caused ..." or even "The fact that he had a comrade caused ...". It seems quite plausible in view of this that the 'subject' predication in fig. 13 should really look like:

Fig. 14



Existential nodes appear to be peculiarly evanescent; they are needed in underlying structure if structural regularities are to be preserved, yet they rarely turn up in superficial form. It seems not unreasonable to claim that this one will be deleted; the deletion argument is therefore not rejected on the evidence of such sentences. The question remains, however, to be answered, as to precisely why such a deletion feature can account for the introduction of prepositions.

A principle suggested by Emonds is interesting looked at in this context. Emonds' idea consists fundamentally in suggesting that, for a large and important subsection of transformational rules, there should be a constraint on derived structure such that no derived structure should be possible which could not itself be generated by the phrase structure rules. The mechanism which Emonds uses to enforce this principle is to allow nodes to be inserted by the phrase structure rules which are not affected by lexical insertion. Then, for these crucial transformations, the

following holds:

"A structure-preserving movement rule is a transformation such that (i) the structural description specifies the location in trees of two nodes  $B_1$  and  $B_2$  bearing the same label  $X$ ;

(ii) the structural change moves  $B_2$  and all the material dominated by it into the position of  $B_1$ , deleting  $B_1$ ." (Emonds 1970)

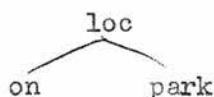
A certain similarity to this proposal, although it is couched in a very different framework, may be found in Anderson's proposal (1972) that movement of nouns consists in attaching them to empty nodes in higher predication ('quasi-predications'). The interest in this proposal from the point of view of prepositional constructions lies in the fact that, at least in the example studied so far, the prepositional construction is found in a structure in which a node has been made empty by deletion. In fact what I am hypothesising is virtually the opposite of Emonds' hypothesis; not that nodes are created to receive elements, but that elements are created to fill nodes. Within the model of this thesis there is no sense in creating empty nodes in underlying structure. Anderson, for instance, uses his superordinate case nodes as preposition-determining elements; if, as I have claimed here, cases and prepositions are predictable on the basis of the central predication of a sentence alone, they are obviously not conditioned by any predication superordinate to the main one.<sup>2</sup> Consequently, empty nodes can be created in this model only by deletion; the hypothesis to be tested is whether these nodes form a plausible source for

prepositions.

The simplest case of such constructions is of course the simple locational sentences such as (9), which will have a structure like that in fig. 15:

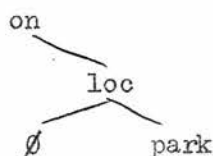
(9) On v parke. "He is in the park"

Fig. 15



Rule 2 will convert this to fig. 16, which will have an empty node for the introduction of a preposition:

Fig. 16<sup>3</sup>



The same will of course apply mutatis mutandis to other locative sentences - e.g. possessives:

(10) U menja kniga. "I have a book"

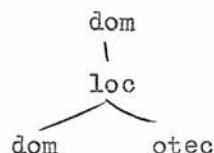
However, the prepositional construction of possession is interesting in that it alternates with the simple genitive in noun phrases - e.g. (11 a) and (11 b) are synonymous:

(11) a. Dom u otca.(G)

b. Dom otca.(G) "(My) father's house"

If we accept that these are both derived from an underlying structure as in fig. 17, how can these be differentiated?

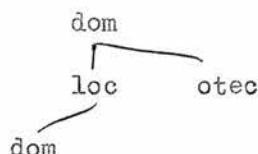
Fig. 17



(11 a) could be formed simply by deleting the lower occurrence of

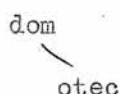
dom ("house"); a preposition would then be inserted in the space. The simple genitive could perhaps best be formed by an application of rule 1a to fig. 17, giving fig. 18:

Fig. 18



Again the lower occurrence of dom could be deleted, and it seems reasonable to postulate that any relator left with no dependent elements should be deleted; the structure of (11 b) will therefore be fig. 19:

Fig. 19



This solution is attractive for two reasons; it corresponds, with only a slight modification, to the definition of the genitive given in chapter 4, and it shows that the operation of rule 1a as justified on this type of structure, as it produces only grammatical sentences.

The parallel with the structure-preserving hypothesis may be extended by the further observation that this analysis of prepositions seems to apply only to locative predications. I can think of no preposition which could be inserted in dyn predications, and there is reason, within this hypothesis, to think that this is not accidental. An obvious point of formal differentiation between loc and dyn predications is that the arguments of a loc predication can be anything - either single elements or complete further predications - while the arguments of a dyn predication can only be

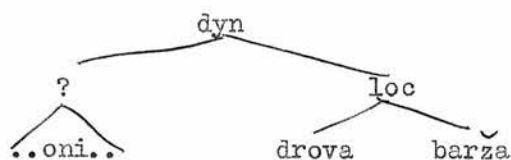
complete predications, at least at the level of underlying structure. Single elements dominated by a dyn must have been put there by a raising transformation. The argument from structure-preservation is that prepositions, being single elements, can only be inserted in positions where single elements belong - i.e. in a locative predication, but not in a dyn predication. It therefore seems a reasonable hypothesis that the preposition is inherently locative. This argument is strengthened by the fact that the locative case is the only case in Russian which cannot occur on its own, but must be accompanied by a preposition. As the only case derivable only from an underlying locative predication which is not moved in the course of a derivation, the locative could be expected to be uniquely associated with prepositions, as it is, given the locative nature of prepositions in general.

Complications arise in this account of prepositions, however, if one considers sentences with double objects, of the type already considered in S3.1.

- (12) a. Oni gruzili drova na baržu. "They loaded firewood  
onto the barge"  
b. Oni gruzili baržu drovami. "They loaded the barge  
with firewood"

The underlying structure of both of these will be as in fig. 20:

Fig. 20



(12 a) is the expected result of the raising of drova ("firewood") and the insertion of a preposition in the resulting gap. But (12 b),

which should also have a preposition but only the instrumental case of the one element that is left behind in the locative predication. These were the constructions with which the question of prepositional insertion really began in §3.4.; it was claimed there that these constructions do not take a preposition because there is no deletion in them, while the somewhat similar sentences which take the ablative prepositions do involve deletion. It is not clear to me how far a discussion of deletion here can rest on discussions of deletion with reference to other transformational models, but it is clear, for instance in Ross's (1967) discussion of 'chopping' and 'copying' transformations, that it is a very complex question. Ross claims that chopping rules (rules which delete constituents and move them elsewhere) are liable to constraints on movement transformations, while copying transformations (which insert copies of other elements) are not. I have not discussed at all whether any of the rules I have suggested are copying or chopping transformations; Anderson (1972) claims that Spanish passive reflexives (which appear very like certain Russian reflexives) can be accounted for as straightforward reflexives if the subject-forming rule is a copying transformation. This seems an appealing suggestion; by itself, it will not, of course, deal with the problem under discussion. But if a condition was specified, rather like Ross's Branch Condition (Ross 1967 p 114), that elements in 'subject' position of a predication could not be moved by a chopping transformation, then the raising transformation would have to leave a copy behind in these examples. If the preposition-introduction principle were then to state that prepositions were to be introduced

only on pro-form nodes, the data of (12) would be dealt with satisfactorily if not with any great insight.

Testing any more complex prepositional constructions for correspondence to the predictions of this theory is a considerable problem in that detailed specifications have not yet been given of the structure of many of these constructions. The complexity of the structures can be shown by one example:

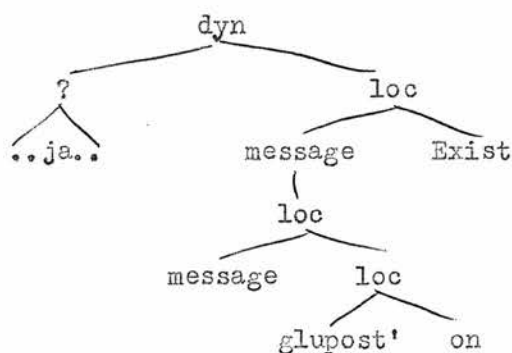
- (13) Ja govoril o tom, čto on glup. "I was talking about  
(the fact) that he is stupid"

This, of course, must be differentiated from the sentence:

- (14) Ja govoril, čto on glup. "I was saying that he was  
stupid"

Verbs of speaking are verbs of creation - i.e. causing a spoken message to exist; the message noun (which will suffice for the moment for the necessary noun) will be a complement taking noun on the model of those in S2.4.5. The structure of (14) will therefore be something like:

Fig. 21



(i.e. "I created a message which consisted in it that he has stupidity")

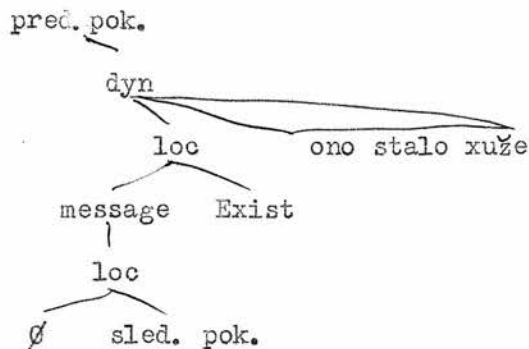
What will therefore be the structure of (13)? It must clearly have the same structure as fig. 21 down to the relative clause, which

is the part that will differ; some clue to this is provided by sentences such as:

- (15) Každé předchozí pokolení říká o následujícím, že ono stalo hůř. "Each preceding generation says of the next one that it has become worse"

In this sentence, the prepositional phrase with o has been detached from the complement sentence in which it began life as subject; it will therefore have a structure identical to that of fig. 21, except that where fig. 21 has the structure for on glup ("he is stupid"), this structure will have následující pokolení stalo hůř ("the next generation has become worse"). The mechanism for the separation of the subject from the rest of the sentence is presumably as follows; by rule 1a, the subject is raised to become dependent on the next loc up; on the next application of the rule, the predication, minus the separated element is raised until it becomes dependent on the topmost relator, dyn. the final structure is therefore:

Fig. 22



The structure for (13) will differ from this only in that the predication from which the element čto on glup is extracted is otherwise indeterminate; when this is extracted, the rest of the predication will therefore be deleted as it contains no lexical material.



Under such an interpretation of this construction, there is complete regularity in the choice of a preposition in the extracted element.

If the suggestion made here about the source for prepositions is at all valid, it is clear that extensive research will need to be undertaken, both into the nature of the rules which could affect the choice of preposition or case, and into the structure of a large number of prepositional expressions not investigated here. A lot of very specific assumptions need to be made about rules and lexical entries for verbs before attempting to justify the introduction of prepositions after a verb like govorit' ("say"). If the same assumptions also need to be made in dealing with other verbs, and if they are supported by independent evidence, then it will be possible to say that the approach suggested in this section is valid.

#### 5.5.1.

An obvious exception to the preposition introduction appears to be the dative case; it has been analysed (S2.7.) as a case of motion towards, used chiefly with animate nouns. As such it is directly parallel to other motional expressions, all of which occur with a preposition; identical structures, according to this analysis, will underlie (16) and (17):

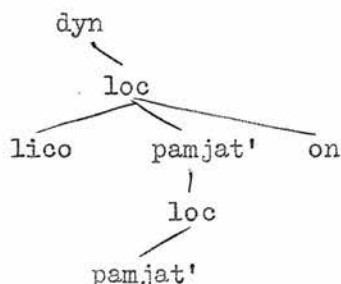
(16) On dal mne (D) knigu. "He gave me a book"

(17) On poslal pis'mo v Pariž. "He sent a letter to Paris"

It is, however, interesting and curious that one of the most frequent uses of the dative, if the analysis in S2.7. is correct,

is its use as a marker of inalienable possession, and that, furthermore, inalienable possession is subject to a special raising rule (1 b in S5.3.) which might affect dative constructions of this sort. It is possible to allow for inalienable possessors in motional constructions to be without prepositions if this rule is revised to let them be raised to any higher predication rather than only the topmost one; if the rule is framed this way, then one could convert fig. 12, underlying all the sentences in (5) into fig. 23, a step in the direction of (5 c):

Fig. 23



The raising of lico ("face") will allow for the prepositionalising of pamjat' ("memory"), but not that of on, although the latter is still dominated by loc and dyn so that it denotes motion. A problem with this analysis is that with alienable possession, the possessor can be the dative with the preposition k:

(18) Oni privlekli k sebe na predpriятие molodyx rabočyx.

"They attracted young workers to their enterprise"

(19) Oni ni razu ne postučalis' ko mne v dver'. "They never  
once knocked at my door"

Such sentences could not be formed if the relative clause structure remained intact; nor, as is obvious given the operation on inalienable possessors, could it be formed by raising the possessor element to the predication above. Nor is it possible to analyse

this construction as involving double allative expressions, as this is simply not the meaning of this construction; this can be shown by a sentence such as:

- (20) On zvonit so služby k sebe domoj. (lit) "He phones from work to himself to home" i.e. "He phones home from work"

As he is at work, he obviously cannot phone himself at home; the k + dative expression is used simply to show the possessor of the home - not the addressee of the phone call. This differentiates this construction from the superficially similar construction exemplified in (21):

- (21) Sestry ne vyrazili želanija jexat' k bratu v takuju dal'.

"The sisters expressed no desire to go (to) such a long way to their brother"

### 5.5.2.

Here again is a construction which has demanded syntactic differentiation of alienable and inalienable possession; the problem is to find a rule or set of rules which will adequately account for the difference. It is therefore interesting that there is a deletion process which can be generalised over and above cases of inalienable possession; some of the clearest examples, however, do involve inalienable possession. For instance, there is a class of reflexive verbs - a subclass of the so-called 'de-subjective' reflexives (cf. Janko-Trinickaja 1964) - which are synonymous with a combination of the corresponding non-reflexive verb and an object inalienably possessed by the subject; the a. and b. sentences in the following examples are synonymous:

(22) a. On oskalilsja.

b. On oskalil zuby. "He showed his teeth" (grinned)

(23) a. On ščurilsja.

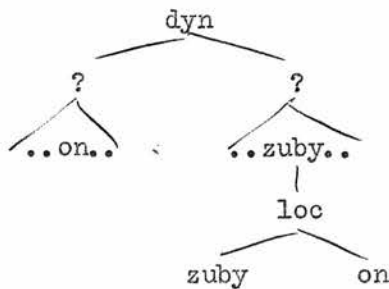
b. On ščuril glaza. "He screwed up his eyes"

(24) a. On ustavilsja na neje.

b. On ustavil glaza na neje. "He fixed his eyes on her"

Ignoring the problem of the overall structure of these sentences, they will presumably fit into a structural framework like fig. 24:

Fig. 24



Given a procedure for deletion of the inalienably possessed zuby ("teeth"), reflexivisation will occur perfectly regularly due to the presence of a noun coreferential to the subject in object position.

A rather similar procedure takes place with transitive verbs also involving inalienable possession; here again, the (a) and (b) sentences are synonymous:

(25) a. On pričesal volosy rebenka.

b. On pričesal rebenka. "He combed the boy('s hair)"

(26) a. Ivan breet Petru (D) borodu. "Ivan is shaving Peter's beard"

b. Ivan breet Petra. "Ivan is shaving Peter"

The same arguments apply here as to deletion procedures to dispose

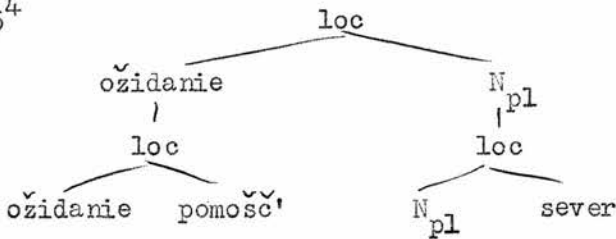
of the inalienably possessed element.

Less similar constructions, however, also demand deletion of elements; mention has already been made (S2.5.) of constructions in which the people involved in a place or an institution are denoted by the name of that place or institution; e.g.:

(27) Sever ožidaet pomošči. "The north is awaiting help"

This will have an underlying structure approximately like fig. 25:

Fig. 25<sup>4</sup>



(i.e. "Those who are in the north have an expectation which consists in being helped")

This construction demands a deletion procedure identical in form to that required in fig. 24 to produce a structure closer to the superficial form. The only difference is that there the deletion procedure is on an inalienably possessed element, while here it is on a pro-element. In both examples the element which must be deleted is effectively redundant.

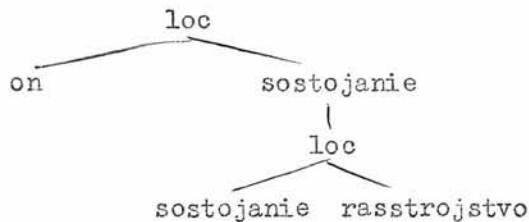
This procedure also suggests reanalysis of certain other constructions which would then undergo this deletion process. In S2.4.4. it was suggested that the alternations of sentences as in (28) was accountable for on the basis of the analysis put forward by Anderson (1972):

(28) a. Onvrasstrojstve. "He was in disorder"

b. On v sostojanii rasstrojstva. "He is in a state of disorder"

Under this deletion proposal, it is, of course, possible to retain Anderson's analysis and still use the deletion process. However, it might be simpler to use a straightforward structure more directly reflecting the surface structure, which would also be susceptible to this process:

Fig. 26

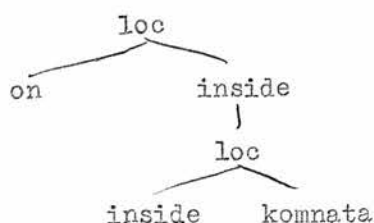


It will still be possible to look on sostojanie ("state") as a pro-element, so that the redundancy of the other examples is found in this construction also. It has been shown (S2.1.) that nouns which have no parameter opposition automatically choose a preposition to go with them; for instance, v seredine ("in the middle") and na vershine ("on the summit") cannot be glossed as "on the inside of the middle" or "on top of the summit", although the prepositions themselves can be glossed in this way when they are used with non-parametric nouns. It would therefore seem natural to state that prepositions as such do not incorporate nouns of parameter in their own internal structure (as was suggested in S2.1.), but rather that they are conditioned by the noun that follows them. Under this interpretation, every superficial preposition + noun construction which alternates with another prepositional construction with the same noun will have as underlying structure a parameter-conditioning noun (inside, top, etc.) and the noun that appears on the surface; this will be expressed in a structure like

fig. 27 for (29):

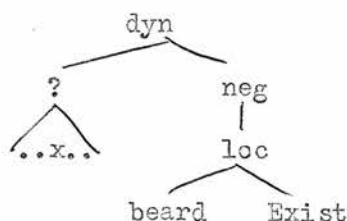
(29) On v komnate. "He is in the room"

Fig. 27



The relation of a room to its inside is presumably one of inalienable possession; there will be a transformation in which the preposition is chosen in accord with its position in relation to the noun of parameter; the deletion process will subsequently apply to give the correct superficial structure for this sentence - similar to that of fig. 16. This is only a very minor part of the analysis of parameters, but this approach seems more plausible than that of S2.1. One of the arguments in its favour is that a similar approach seems to be needed to deal with some of the other constructions dealt with in this section on this deletion process. For instance, in a sentence like (26), the verb brit' might be analysed as a simple verb of destruction - i.e. its structure will be as in fig. 28:

Fig. 28



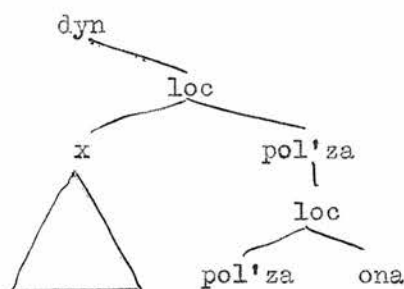
Any process of lexical insertion will state that a verb of destruction will be lexicalised as brit' ("shave") in the environment of boroda ("beard"); this is directly parallel to the type of lexical

insertion rule saying that a locational preposition will be lexicalised as in v ("in") in the environment of the parameter noun inside. The analysis here of brit' is probably wrong, but the principle seems sound enough; most of the verbs in these examples presuppose the objects which are deleted - e.g. oskalit' can only have zuby ("teeth") as its object, pričesat' ("comb") can only have volosy ("hair") as its object (of course it can have people as well, but that is the point of the deletion process), oždat' ("await") demands an animate subject. In most of these constructions, therefore, the deleted noun is redundant in that its semantic specification is partly covered by the possessor noun dependent on it, and partly in the 'selectional features' of the verb lexicalised in its presence.

### 5.5.3.

To return to the dative case, some of the constructions already analysed there seem to be in need of a principle such as the deletion rule just considered. Various dative constructions are considered in S2.7.; the analysis of the so-called 'dativus commodi/incommodi' is claimed to involve a noun of gain/harm, which is subsequently deleted; this would perhaps involve a predication like that of fig. 29 superordinated over a sentence:

Fig. 29





(I have used pol'za ("gain") although, as suggested in S2.7., it will be a term neutral as to gain or harm). Without deletion, this structure would emerge as "Jej na pol'zu" ("in her favour"), but with the structure deleted, the simple dative would remain. This appears to presuppose that case and preposition assignment has already taken place, if the analysis of the dative of inalienable possession given in S5.3.1. is correct. This poses certain problems, but without going into the whole question of lexical insertion, which I am reluctant to embark on, it is perhaps best to leave these undiscussed. Within the analyses of S2.7., it is possible that this process will be needed also in a fuller treatment of the constructions with motional complements of golova ("head"), such as:

- (30) Jemu v golovu prišla interesnaja mysl'. "An interesting thought came into my head"

Such constructions will underlie verbs like dumat' ("think"), etc. However, it is difficult to decide finally whether such elements should be incorporated into the structure of the verb itself, or whether they simply affect the choice of verb at lexicalisation, and are then deleted; there is little evidence one way or the other, so an arbitrary decision may have to be made.

However, the existence of a deletion principle is suggestive of a reanalysis for datives which have been analysed here as not involving inalienable possession. The commonest of these is the dative of coming into possession, as it:

- (31) On dal eto mne. "He gave it to me"

A near paraphrase of (31) is:

(32) On dal eto mne v ruki. (lit) "He gave it to me into  
the hands" i.e. "He gave it into my hands"

(32) is obviously somewhat more specialised than (31), but the sense is very similar. Clearly (32) is not of itself a source for all sentences with dat', but a similar inalienable possession construction with a more generalised noun than ruki ("hands") would seem to make a good source for dat' sentences, given the fact that there exists a deletion procedure which could account for the difference between the underlying form and the superficial. This would have the interesting effect of making plausible the suggestion that dative case was not simply a case of motional location, but rather a case of inalienable possession of a motional complement, in all of its uses. This would be desirable not only in that it made the definition of the dative so much more specific than previously, but also in that dative would no longer be an exception to the preposition introduction rules of S5.4. It is consequently essential that there should be a reconsideration of those uses of the dative previously thought to be simple motional locatives.

Near synonyms of dat' ("give") will naturally share its structure; the verb vruca<sup>v</sup>t' ("to hand") in fact incorporates the preposition v ("in(to)") and the root ru<sup>v</sup>c - a regular variant of ruk ("hand"), along with the regular verbal ending at'. The only other type of construction which was analysed as being a dative of coming into possession was that in which dat' is used as a pro-verb along with a verbal noun; even if no other evidence could be found that these were not datives of inalienable possession as well, it

would be a decision of dubious validity to state that these were evidence of the dative having a meaning other than that of inalienable possession. For a single small class of constructions is not sufficient to justify such a decision. And indeed there seems to be little systematic basis for reanalysing most of these constructions; for instance, one can say:

(33) a. *Texnika ne pomog človeku.*(D) "Technology has not helped mankind"

b. *Texnika ne dal pomošč' človeku.*(D) "Technology has not given help to mankind"

c. *Texnika ne prišla na pomošč' človeku.*(D) "Technology has not come to the aid of mankind"

(33 c) could serve as a source for (33 a), with its dative of inalienable possession; but this pattern is not repeated over other verbs with dative government and a possible paraphrase with dat'. It might be suggested that the new analysis of dat' could also be applied to its use in such abstract constructions; if it could be glossed as 'cause to come into the possession of' this would make dat' more amenable to solutions such as those I have sketched. A useful consequence of the reanalysis of the dative as the case of inalienable possession of motional elements, and the subsequent reanalysis of constructions with inanimate nouns 'standing for' animate nouns (as in (27)), is that animate nouns no longer have to be seen as a special case with regard to locational parameters; any animate noun with an indication of a spatial parameter will obviously be seen as concrete, but there will be no construction in which animate nouns have to be analysed as

something 'non-spatial', as was suggested in S2.5.

## 5.6.

Mention has been made in this chapter both of a definition for prepositions, and a method of formalising the choice of prepositional parameters. Although it is possible to look on both of these as involving at least some progress towards a more complete formalisation of the model, the problems of prepositional parameters and the relations between prepositions still form one of the largest of the unsolved areas among those discussed in this thesis; questions of the following sort remain unanswered - how many separate parameters must there be (or are they, perhaps, unlimited)? are all parameters mutually exclusive, or might there perhaps be some cross-classification (Hjelmslev's (1935) feature of 'coherence' might be a candidate for a parameter on a different level from those such as 'in', 'top', etc.)? how can converseness be represented in relation to parameters? These questions are, of course, interrelated; if converseness is represented directly, with only one parameter noun for each converseness pair, and if cross classification is allowed, then the number of parameters necessary will be very small indeed. Such evidence as is presented in S2.1. seems to suggest that the number of parameters is indeed very small, or at least, that there is a hierarchy, with a very small number at the top. It is suggested there that the basic opposition with locative prepositions is that between v ("in") and na ("on") because all other prepositions can be expressed in terms of these two, but neither of these can be expressed in terms of the other, nor in

terms of any other, more basic preposition.

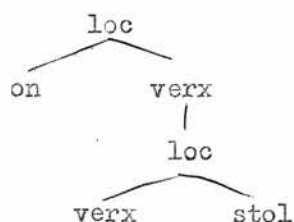
On this basis, pod ("under") could be described as the converse of na ("on"); how, then, could the relationship of (33) and (34) be described?

(33) On - na stole.(L) "He (is) on (the) table"

(34) Pod nim (I) - stol. "Under him (is the) table"

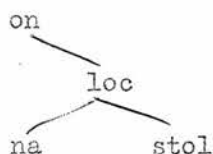
The structure of (33), which I have claimed is the most basic construction, might be as in fig. 30:

Fig. 30



(33) can be derived by subjectivisation of on ("he"), deletion of the embedded verx ("top") and subsequent deletion of the verx configuration, once the upper locational relation has been lexicalised as the preposition na ("on"); the final structure would therefore be fig. 31:

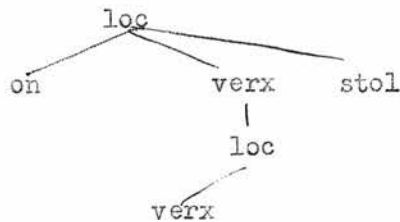
Fig. 31



The locative case will be a consequence of domination by a simple locative element. The derivation of (34) will involve stol ("table") being chosen as the subject; the mechanism for this will be rule 1b from S5.3. which raises an element from a relative clause to be dependent on the topmost element, as long as the relative clause is one of inalienable possession; this can be said of the relation

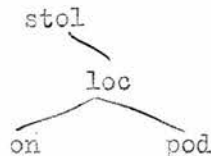
of a table to its top. Fig. 30 will therefore be transformed to fig. 32:

Fig. 32



At this stage we reach a technical difficulty; the structure really intended as the final structure after fig. 32 is fig. 33:

Fig. 33



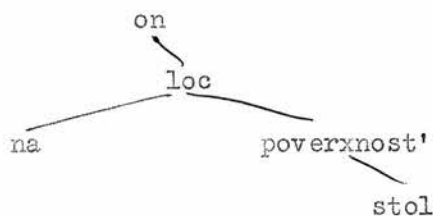
But this structure cannot under the present rules be generated from fig. 32. A solution which can be adopted, and which, on other grounds seems fairly likely,<sup>5</sup> is to say that rule 1b is a copying transformation; if so, a copy of stol ("table") would have remained at the bottom of the tree in fig. 32, the deletion rule could then apply, and the required structure would be reached; from the point of view of the preposition introduction mechanism considered in §5.4. this is in fact a more desirable derivation, as it means that there will be an element to be deleted (the copy) in the place where the preposition is to be inserted. The interesting thing about fig. 33 is that it predicts the case of the noun with the preposition; this is the instrumental case, and it is predicted because the noun is in the 'subject' position of the locative relation. This, if it is confirmed by analysis of other instrumental-governing prepositions, is interesting confirmation

of the suggestion that converses are defined in terms of a single parameter element. Two things further need to be said in relation to fig. 33; the order of noun and preposition is immaterial at this stage and can easily be adjusted by a low level flip rule; secondly, the choice of pod or na as the preposition in figs. 31 and 33 will presumably be made on the basis of environment when the choice is made; which particular part of the environment is something I cannot specify at the moment. Of course, if the sentence to be generated is something such as:

(35) On byl na poverxnosti stola. "He (it) was on the surface of the table"

there is no problem in its derivation from the underlying structure of fig. 30. The structure that will emerge will be fig. 34:

Fig. 34



The choice of preposition is accomplished in the same way as in the derivation of (33); the difference here is that the deletion rule does not apply, and the procedure for adnominal genitive worked out in S5.4. will take place. One of these processes will be dependent on the application of the other, but it is not of great concern here which is which.

This has some plausibility when applied to the analysis of na and pod; it is less easily applied to the analysis of nad ("above"). Perhaps the most straightforward description of nad in terms already used in this thesis is to say that it is a

'non-coherent' version of na; however, this is to make assumptions about the form of the model which have not yet been given any serious discussion, and it would be interesting to see if any other form of explanation for nad is possible, taking into account the fact that it is an instrumental-governing preposition, and also the fact that it appears to have no nouns of parameter other than those which belong to na. One possible suggestion, for instance, is that nad should be the negative of pod - i.e. 'over' = 'not under'. This would account for the fact that nad governs the instrumental, but it would only give a very approximate semantic representation, for 'over' does not mean 'not under'; it might be represented as 'not under and not on the same level as', but that seems a little clumsy, especially when the information is already systematised that pod is the converse of na, and that nad and na are so similar, in particular in that pod is also the converse of nad; thus in abstract sentences, pod denotes the converse of both na and nad:

- (36) a. On okazal vlijanie na detej. "He had influence over  
(on) the children"
- b. Deti, pod jego vlijaniem .... "The children, under  
his influence"
- (37) a. On prinjal komandu nad polkom. "He took command  
over the regiment"
- b. Polk, pod jego komandoj .... "The regiment, under  
his command"

The same is true of concrete constructions. It thus seems inevitable that na and nad should share a considerable amount of their



structure. The differentiation in terms of 'coherence' seems valid also for abstract constructions; influence suggests a causative link, while command over someone suggests a less direct link in producing an event. (N.B. In Russian this has no connexion with the word for "command" meaning "order" - prikazat') However, I can offer no solution to this at the moment which would both provide a suitable representation for the meaning of nad and be consistent with the model I have presented. Although it is possible that this could constitute counterevidence for some of the suggestions I have made, it does not do so at present because there is to my knowledge no theory in which the various properties of prepositions have received adequate formulation; the properties which require explanation include the range of meanings - abstract and concrete - covered by particular preposition, its connexions with other prepositions, its government of cases, and so on.

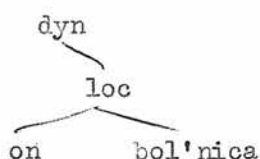
This discussion of prepositional parameters has left as much uncertainty as there was when it started off, but it has raised the question of whether the prepositional government of cases can be predicted in terms of the case configurations themselves or whether case and prepositional constructions need to be considered as a whole. This same problem, although couched in very different terms here, is an old one in linguistics; the position that cases are independently definable is upheld, for instance by Jakobson (1936), while the position that a preposition + case construction is to be considered in the same way as a simple case construction is supported by Kurylowicz (1949) and Benveniste (1949), among others. Although Jakobson's position is one that is very appealing

intuitively, it is not easy to find any explicit evidence for it.<sup>6</sup> This position worked in the analysis of (33) and (34), but it has not been shown to work with the preposition nad ("above"). Even in the analysis of ordinary motional locative sentences, there are problems; consider a possible derivation of (38):

(38) On vošel v bol'nicu. (A) "He went into hospital"

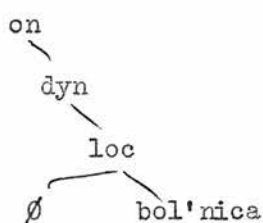
(38) will have the underlying structure (ignoring representation of parameter) of fig. 35:

Fig. 35



The animate noun will be raised as subject, and the resulting structure will be:

Fig. 36



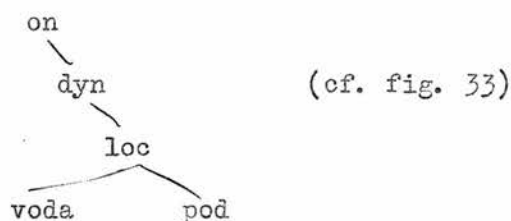
Although this structure is one into which a preposition may be inserted, it is not, by present rules, one into which the accusative case may be inserted, although it is the accusative case which is desired. The only way of getting an accusative case is to raise the noun bol'nica ("hospital") to a position under the dyn element; no means has been suggested here of doing this, and besides, if this were done, there would be no means of introducing a preposition.

There seems little to do, given the present hypothesis about prepositions, but change the definition of the accusative case,

so that it can also apply in environments where it is not directly dominated by a dyn element. This will apply not only to prepositions such as y ("in(to)"), but also to more complex prepositions such as pod ("under"). The final structure of a sentence like (39) will, if the preceding discussion has any basis to it, be as in fig. 37:

- (39) On spustilsja pod vodu.(A) "He lowered himself below  
water"

Fig. 37



Here also the case introduction mechanism will need to be sensitive to the dyn element which does not directly dominate the case-marked element. This is not a particularly satisfactory state of affairs, but it is obviously dependent on so many variant factors that a fuller discussion of it would demand another thesis. If the accusative poses problems such as these, the dative and (especially) the genitive with prepositions are at present totally mysterious when it comes to specifying an explicit environment for their introduction with prepositions. The problem is not that they do not seem to accord with their general definitions, but that they offer so many possible choices of motive for introduction that a unifying thread is difficult to find. The genitive, for instance, is obviously connected with negation; even if the ablative prepositions are discounted, there are prepositions which are manifestly negative in import which govern the genitive - e.g. bez ("without"),

krome ("except"). But this needs to be brought into the framework of a purely formal case definition. The genitive has already posed problems in that it seems to alternate with other cases; theoretically, it should also be able to alternate with simple locative and allative prepositions, as these involve nouns which are the rightmost member of predications. Is it possible to say that this explains the use of the genitive with u ("at") or do ("up to"); even if it does this still leaves a necessity of explaining the alternation.

This rather inconclusive section has left wide open the question of whether cases governed by prepositions are or are not introduced by the same rules as cases governed by other things, although any evidence against the position that they are the same seems to derive more from the incompleteness and ambiguity of the preceding analysis than from the nature of the phenomena themselves. In particular, the rules for introduction of prepositions are a crucial step in this argument; even if the proposals I have made above are correct in principle, there are a lot of technical difficulties and individual analyses left undiscussed purely because of the complexity and wide range of the problem. At other points in this thesis, less formal, but intuitively satisfying, suggestions have been made about the nature of prepositions - e.g. in S4.2. it was suggested that the accusative case will correspond to the dyn element while the preposition will correspond to the loc element; this would presumably mean in more formal terms that there would be an operation which would replace the elements loc and dyn by case and prepositional elements, perhaps after copying them so that they would be

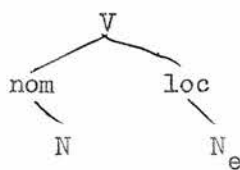
available to be lexicalised also as a verb. This is a proposal which might be worth developing, but it would still come up against problems; why, for instance, is the element *loc* only sometimes lexicalised as a preposition, at other times being a simple dative or an instrumental or a genitive? It is evident that the solution of such questions will not be easy.

### 5.7.1.

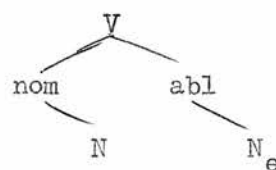
It might be worthwhile to discuss in this final section some of the general problems involved in incorporating into the model some of the unelaborated suggestions that have been made in the course of this thesis, and also to show some of the possibilities and problems involved in generating underlying structures of the type used here, and converting them finally to superficial structures in which will be contained information as to the category and morphological class of elements, information as to linear order, and a string of discrete lexical elements.

The suggestion was made in passing in §3.2. that greater generalization could be achieved by following Anderson (forthcoming b) in giving negatives a source in a superordinate two-place predication identical to an existential predication except for the case of the existential element, which would be ablative for the negative, as opposed to locative for the existential. Thus, fig. 38a represents the existential, while fig. 38b represents the negative:

Fig. 38 a.



b.



This notation is justified on the basis of an analysis of quantifier constructions, but also on the numerous pieces of data in which morphologically ablative elements have a negative import. This applies also to Russian, where there are numerous examples of the negativeness of ablative markers; in some contexts, negative markers and ablative markers are interchangeable:

- (40) a. Jego proisxoždenie daleko ot proletarskogo. "His origins are far from proletarian"  
 b. Jego proisxoždenie daleko ne proletarskoje. "His origins are not proletarian by a long way"

In other constructions, an element which governs an ablative element is synonymous with a negative existential element:

- (41) a. Kniga ne svobodna ot nedostatkov. "The book is not free from faults"  
 b. V knige imejutsja nedostatki. "In the book are faults"

Other verbs with ablative markers are also clearly negative:

- (42) On otkazalsja ot podarka. "He refused the present"  
 (43) On otrical svoje učastie v dele. "He denied his participation in the affair"

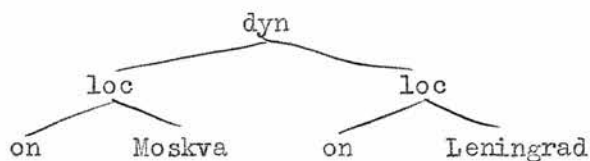
It is evident, however, that Anderson's solution for this problem cannot be converted directly into this theory, as there is no ablative case, and the analysis of ablative prepositions in this thesis has been rather more complicated than the analysis that Anderson gives them. However, it is also apparent that at least a part of the negative construction should be analysable in

terms of the 'traditional ablative' - the 'subject' of a spatial dyn predication. This is connected with the claim made in S2.1. that the ablative is the motional correlate of absence, which is in turn defined as the negative of a locative. A curious result of the notation developed in chapter 3 is that this observation is not fully formalisable within the model as it now stands; this can be shown by considering a typical ablative-allative sentence such as:

- (44) On ujexal iz Moskvy v Leningrad. "He went from Moscow to Leningrad"

This will have the structure of fig. 39:

Fig. 39



The same structure without the rightmost locative predication will produce the structure of the simple ablative sentence (45):

- (45) On ujexal iz Moskvy. "He left Moscow"

It is such sentences that I have called motional versions of sentences of absence; unfortunately, there is no way in which a structure like that in fig. 39 can be converted into a sentence denoting simple absence. Taking away the dyn element that dominates the leftmost locative predication would simply leave a locative predication rather than the expected negative locative. It is indeed a problem whether such a solution, or any adequate solution, can be incorporated into this model; however, any solution would need to be one which took account of the syntactic behaviour of quantifiers in Russian, which is in many ways very similar to that of

negatives (cf. Miller forthcoming).

### 5.7.2.

If the general notation of this thesis is accepted, the claim that categorial distinctions do not appear in underlying structures follows almost inevitably. The chain of reasoning that leads from the model to this claim is quite simple; the abstractness of the relations posited leads to the inevitability of verbs being decomposed into more elementary units. When this is done, verbs consist of configurations of abstract relational elements and a number of other elements; these other elements are frequently capable of being realised as abstract nouns, as well as combining with relational elements to form verbs. There is clearly no possibility of labelling these elements as verbs because they are not relational, and cannot themselves be lexicalised as verbs. Many elements may be lexicalised either as verbs, or as adjectives, or as nouns (elements of colour are an example of this in Russian) in combination with other elements. It would clearly be vacuous to label these elements as nouns, as the absence of any other categorial distinctions would make this labelling redundant through lack of oppositions. Such a position seems almost beyond dispute, given the initial assumptions, yet it will clearly also be necessary at some later stage in the derivation to specify categorial information, if only to effect morphological marking of inserted elements. The level at which this categorial marking needs to take place might in fact be quite superficial. It has been suggested in the transformational literature (e.g. Postal 1971 S18E)



that prepositional phrases and noun phrases should be identically marked for certain transformations, and that they may both be marked as NPs. It is also significant that many syntactic constraints (of the type developed in Ross 1967, Chomsky 1971) and possibly even some transformations (cf. the account of coordination in Sanders 1970) have been couched in terms that do not directly take into account the syntactic category of the elements specified in them. Here as elsewhere it is difficult to know to what extent results gained in the development of other transformational models is valid in a model such as this one, but any development which lays less stress on categorial information must bring transformational theory to some extent towards this model.

It seems to me that a certain indeterminacy is bound to exist as to whether an element in a structure is going to be realised as a noun or is going to be combined with another structure and realised as a verb, an adjective, or a verbal noun. The reason for this indeterminacy is that there is a fairly large group of verbs which have a paraphrase with an abstract verb and a noun; such alternations are, for example:

- (46) a. On soglasilsja na eto. "He agreed on it"
- b. On dal soglasie na eto. "He gave agreement to it"
- (47) a. On otčajalsja. "He despaired"
- b. On byl v otčajanii. "He was in despair"
- (48) a. Oni ubrali urožaj. "They gathered in the harvest"
- b. Oni proizveli uborku urožaja.

The general position, however, is that one can predict things that are definitely going to be nouns, but cannot predict that something

is not going to be realised as a noun (except in a single relational element). It has already been suggested that the proposal put forward by Lyons (1966) that nouns as a class are basically words denoting things, is fundamentally correct. From observation of the structures considered in the course of this thesis, it seems that another sure source for a noun is any element that has been raised out of its original predication. This is not surprising and follows from the first consideration in part, in that the concreteness of the noun in a predication is in itself a criterion favouring its being raised out of that predication (cf. SS1.4.4. & 4.3.3.). I know of no other certain criteria that an underlying element should be a noun, but I have no doubt that there are such criteria; indeed, it seems likely that any such will be connected with criteria for element-raising - the same general set of criteria which needed to be invoked in a discussion of the genitive (S4.3.3.)

### 5.7.3.

Relations of linear order have in general been treated fairly lightly in this thesis, save insofar as they marked significant position with respect to relational elements. (Even this could have been marked by other means, such as little arrows which could have pointed either way.) Russian, of course, has a relatively free superficial word order, and I can see no reason why the order of elements in a superficial sentence should not be determined directly by the criteria which determine superficial word order. This is to claim that there is no such thing as 'grammatical word

order' (cf. Isacenko 1966); rather according to this view, the fact that the 'unmarked', most frequent word order in Russian is the order S.V.O. is due to the fact that the criteria which determine word order (the various phenomena included in the label 'functional sentence perspective' - cf. Adamec 1966) also have some relevance in the choice of the subject (cf. S4.3.3.). 'Grammatical word order' is rejected simply because, if it existed, it would be non-functional in the model suggested here.

Other elements require a fixed order in surface structure, but this is no evidence for this order being present in underlying structure either. The superficial order of prepositions and their dependent nouns is of this type. This could easily be accounted for as being due to a 'surface structure constraint' of the type justified by Perlmutter (1971). If the suggestion made above about the introduction of prepositions is even remotely correct, the ordering of prepositions and nouns will have to be controlled by such a constraint, as it will not have any necessary correlation with their underlying order. Even if this suggestion about prepositions is not correct, their order could probably still be described best in terms of such a surface structure constraint, as they show a rigidity of order uncharacteristic of the rest of Russian word order phenomena, not being affected by any communicative considerations. Another type of order phenomenon - that of the negative particle - also has an explanation separate from that of other word order phenomena. Within a given semantic reading, the negative particle has a fixed position - when the negation is on the whole sentence, the negative particle is usually in front

of the verb. This can be explained in terms of the scope of the negation, and the restrictions on movement of quantifier or negative elements which are illustrated, for example in Lakoff 1974. The restriction is not on word order, but on the combination of word order and stress; the distinction is shown by the non-synonymy of (49 a) with (49 b), which is, however, synonymous with (49 c):

- (49) a. On ne sidit na stole. "He is not sitting on the table"
- b. On ne sidit na stole. "He isn't sitting on the table"
- c. Ne on sidit na stole. (lit) "Not he is sitting on the table"

It can be seen, therefore, that such restrictions on word order in no way affect the point made here about the lack of evidence for an underlying fixed order of elements.

## Footnotes to Chapter 5

- 1 As this thesis has developed, I have begun to have misgivings about the choice of the term 'subject' for one of the arguments of predications. However, I do not think any great damage is done in using it, as long as it is remembered that it is merely a label for elements which occur on one side of a predication.
- 2 There is a conceptual difficulty here about what is meant by 'main predication'. This might seem intuitively obvious, but when there is a large hierarchy of predications, with time, place, aspect, etc. above the type of structure we have been considering in this thesis, it is not clear how a formal definition of this could be arrived at. And of course predications of time or place can easily be made the main predication of a sentence isofar as the 'main verb' in a sentence can be that of a tense predication, for instance; ("It was yesterday, that ...").
- 3 It will of course be noted that rule 2 will not have this effect, but this is the process which it has been assumed throughout this thesis underlies subject forming. What in fact seems a more hopeful basis for both raising and subjectivisation is that both should be determined by the same rule, but that there should be different rules for extraction of an element from loc and dyn predications. Under this interpretation, an element raised above a topmost predication would automatically become a subject; the rule for raising from

locative predications would be rule (1a), while the rule for raising from dyn predications would be rule 2. It would of course be desirable to generalise these two rules into a single rule of raising, but it is not obvious to me how this could be done.

- 4 The element pomošć' ("help") in fig. 25 would probably be replaced in a more complete analysis by a full predication with the meaning "that help be given them".
- 5 One such 'other ground' is that sentences of the type in which an inalienable possessor is raised to become subject of the sentence often leave behind a reflexive 'trace', which seems to indicate that this is a copying transformation, rather than a chopping transformation; e.g.:  
 Oktjabr'skaja revoljucija uxodit svoimi kornjami (I) v zaveršajuščie gody XIX veka. "The October revolution goes back in its roots to the final years of the 19th century"  
 This, of course, is derived from the structure underlying the sentence "The roots of the October revolution go back ..."
- 6 Of course, this position, like the position that cases are unified elements of meaning (cf. S1.4.5.1.) has the advantage that it is one which cannot be rejected as a general position, as no analysis which claims that the choice of case is to some degree arbitrary can be proved correct; on the other hand, any theory which claims a specific rationale for choice of case with prepositions is easily verifiable, and is therefore preferable.

BIBLIOGRAPHY

- |                               |               |  |
|-------------------------------|---------------|--|
| ADAMEC P.                     | 1966          | Porjadok slov v sovremennom<br>russkom jazyke<br>Praha Academia  |
| ALLEN W.S.                    | 1964          | Transitivity and possession<br>Language 40 pp 337-343  |
| ANDERSON J.M.                 | 1971a         | The Grammar of Case: towards<br>a localist theory<br>Cambridge CUP   |
| —                             | 1971b         | Dependency and grammatical<br>functions<br>Foundations of Language 7<br>pp 30-37   |
| —                             | 1972          | Remarks on the hierarchy of<br>quasi-predications<br>Revue Ronmaine de Linguistique<br>17<br>pp 23-44, 121-140                               |
| —                             | forthcoming a | Aspect: some considerations<br>of a general character arising<br>from the abbe Darrigol's<br>analysis of the Basque verb<br>The Hague Monton |
| —                             | forthcoming b | Universal quantifiers  |
| ANDREWS A.D.                  | 1971          | Case agreement of predicate<br>modifiers in Greek<br>Linguistic inquiry 1  |
| APRESJAN J.D.                 | 1967          | Eksperimental'noe issledovanie<br>semantiki russkogo glagola<br>Moscow Nauka   |
| BACH E.                       | 1968          | Nouns and Noun Phrases<br>Bach & Harms (ed) pp 91-124  |
| BACH E. &<br>HARMS R.T. (eds) | 1968          | Universals in linguistic<br>theory<br>New York. Holt, Rinehart &<br>Winston  |
| BALLY C.                      | 1944          | Linguistique générale et<br>linguistique française<br>Berne. A. Francke  |

- BECKER A.L. & ARMS D.G. 1969 Prepositions as predicates in Binnick et al. pp 1-12
- BENNETT D.C. 1972 Some observations concerning the locative-directional distinction  
Semiotica V
- BENVENISTE E. 1949 Le système sublogique des prépositions en latin  
Travaux du Cercle Linguistique de Copenhague 5  
also in Benveniste 1966 pp 132-139
- 1966 Problèmes de linguistique générale  
Paris. Gallimard
- BERNŠTEJN S.B. (ed) 1958 Tvoritel'nyj padež v slavjanskix jazykax  
Moscow. Nauka
- BIERWISCH M. 1969 On certain problems of semantic representations  
Foundations of Language 5 pp 153-184
- BIERWISCH M. & HEIDOLPH K.E. (eds) 1970 Progress in Linguistics  
The Hague. Mouton
- BINNICK R. 1968 On the nature of the 'lexical item'  
in Darden et al 1968 pp 1-13
- BINNICK R., DAVISON A., GREEN G.M. & MORGAN J. (eds) 1969 Papers from the fifth regional meeting Chicago  
Linguistic Society Chicago
- BIVON R. 1971 Element Order  
Cambridge. Studies in the Modern Russian Language 7
- BORKOVSKIJ V.I. (ed) 1968 Sravnitel'no-istoričeskij sintaksis vostočnoslavjanskix jazykov. 1. Tipy prostogo predloženija  
2. Členy predloženija  
Moscow. Nauka



- BORRAS F.M. & CHRISTIAN R.F. 1971 Russian syntax (2nd ed)  
Oxford. Oxford University Press
- BRØNDAL V. 1948 Les parties du discours  
Copenhagen. Munksgaard
- CHOMSKY N. 1965 Aspects of the theory of syntax  
Cambridge, Mass. M.I.T. press
- 1970 Remarks on nominalisations  
in Jacobs & Rosenbaum (eds)  
1970. pp 184-221
- 1971 Conditions on transformations  
Indiana University Linguistics Club
- COMRIE B. 1971 Aspects of sentence complementation in Russian  
Ph.D. Cambridge
- DAHL O. 1969 Topic and comment: a study in Russian and general transformational grammar  
Slavica Gothoburgensia 4
- 1971 The genitive and the subjunctive in Russian  
Scando-Slavica XVII
- DARDEN B.J. 1968 Papers from the fourth regional meeting Chicago  
BAILEY C.J.N. & LINGUISTIC SOCIETY  
DAVISON A. (eds) Chicago
- DAVISON R.M. 1967 The use of the genitive in negative constructions  
Cambridge: Studies in the Modern Russian Language 2
- DE RIJK R.P.G. 1968 A note on prelexical predicate raising
- DEŠIRIEVA T.I. 1970 Samostojatel'nye padeži, proizvodnye padeži i padežnye varianty  
Voprosy Jazykoznanija 2
- DOUGHERTY R.S. 1970-71 A grammar of coordinate conjoined structures  
Language vol 46 pp 850-897  
vol 47 pp 298-339

- DUBOIS J. 1967 Grammaire structurale du français: le verbe  
Paris. Larousse
- EBELING C.L. 1955 On the meaning of the Russian cases  
in *Analecta Slavica*:  
presented for his 70th  
birthday to Bruno Becker.  
Amsterdam. pp 209-223
- EMONDS J. 1970 Root and Structure-  
preserving transformations  
Indiana University  
Linguistics Club
- FILLMORE C.J. 1966 A proposal concerning  
English prepositions  
Report of the 17th Annual  
Round Table Meeting on  
Linguistics and Language  
Studies. Washington. pp 19-33
- 1968 The case for case  
in Bach & Harms 1968. pp 1-90
- 1969a Toward a modern theory of  
case  
in Reibel & Schane 1969  
pp 361-376
- 1969b Types of lexical information  
in Kiefer (ed) 1969
- FILLMORE C.J. & 1971 Studies in Linguistic  
LANGENDOEN D.T. (eds) Semantics  
New York. Holt, Rinehart,  
Winston
- FINKEL' A.M. 1958 Tvoritel'nyj pričiny v  
sovremennom russkom  
literaturnom jazyke  
Trudi Filologičnogo  
Fakul'tety X.D.U. Karkiv
- FIRBAS J. 1966 On defining the theme in  
functional sentence analysis  
Travaux Linguistique de  
Prague 1. pp 267-280
- GALKINA-FEDORUK E.M. 1958 Bezličnye predloženia v  
sovremennom russkom jazyke  
Moscow

- GALKINA-FEDORUK E.M. 1958 Sovremennyj russkij jazyk.  
(ed) Sintaksis.  
Moscow
- GLADKIJ A.V. 1969 K opredeleniju ponjatii  
padeža i roda suščestvitel'nogo  
Voprosy jazykoznanja 2
- GRUBER J.S. 1967 Look and see  
Language 43 pp 937-947
- 1970 Studies in lexical relations  
Indiana University  
Linguistics Club
- HALLIDAY M.A.K. 1967 Notes on transitivity  
and theme  
Part 2. JL 3 pp 199-234
- HAMP E.P., 1966 Readings in Linguistics II  
HOUSEHOLDER F.W. & Chicago and London  
AUSTERLITZ R. Chicago University Press
- HJELMSLEV L. 1928 Principes de Grammaire  
Générale  
Copenhagen. Det Kgl. Danske  
Videnskabernes Selskab.  
Historisk-filologiske  
Meddelelser XVI
- 1935-7 La catégorie des cas  
Acta Jutlantica VII & IX  
pp 1-184 & 1-78
- ISAČENKO A.V. 1966 O grammatičeskom porjadke slov  
Voprosy Jazykoznanja
- 1967 Frazovoe udarenie i porjadok  
slov  
in To honor Roman Jakobson  
The Hague. Mouton
- JACOBS R.A. & 1970 Readings in English Trans-  
ROSENBAUM P.S. formational Grammar  
Waltham, Mass. Ginn
- JAKOBSON R. 1936 Beitrag zur allgemeinen  
Kasuslehre  
Travaux du Cercle Linguistique  
de Prague 6. pp 240-288, and  
Hamp et al. 1966 pp 51-89  
(page references to this)

- JAKOBSON R. 1958 Morfologičeskie nabljudenia nad slavjanskim skloneniem in American contributions to the 4th International Congress of Slavists. The Hague. Mouton
- JANKO-TRINICKAJA N.A. 1964 Vozvratnye glagoly v sovremennom russkom jazyke Moscow
- JESPERSEN O. 1933 Essentials of English grammar London. George, Allen & Unwin
- KIEFER F. (ed) 1969 Studies in syntax and semantics Dordrecht. D. Reidel
- KIPARSKY P. & KIPARSKY C. 1970 Fact in Bierwisch & Heidolph 1970
- KLIMONOW, ZIMMERMAN, KLIMONOW 1970 Der dativus commodi/incommodi im Russischen Zeitschrift für Slawistik 15
- KORN D. 1967 Case selection: genitive or accusative after negation in contemporary Russian pp 486-497 Modern Language Review 62
- KOVININA N.G. 1970 O dvustoronnix sintaksičeskix svjazjax v konstrukcijax s dvojnym vinitel'nym in Issledovanija po sovremennomu russkomu jazyku. Moscow
- KURYLOWICZ J. 1949 Le problème du classement des cas Biuletyn polskiego towarzystwa językoznawczego 9 pp 20-43 also in Esquisses linguistiques Wrocław-Krakow 1960
- LAKOFF G. 1966 Stative adjectives and verbs in English in Harvard Computational Laboratory Report NSF-17
- 1970 Irregularity in syntax New York. Holt, Rinehart & Winston

- LAKOFF G. 1971 On Generative Semantics  
Steinberg & Jakobovits 1971  
pp 232-296
- LAKOFF R. 1968 Abstract syntax and Latin  
complementation  
Cambridge, Mass. M.I.T. Press
- LAPTEVA O.A. 1966 O nekodificirovannyx sferax  
sovremennogo russkogo  
literaturnogo jazyka  
Voprosy Jazykoznanija
- LYONS J. 1966 Towards a 'notional' theory  
of the parts of speech  
Journal of Linguistics 2  
pp 209-236
- 1968 Introduction to theoretical  
linguistics  
Cambridge. Cambridge University  
Press
- MCCAWLEY J.D. 1970 Where do noun phrases come  
from?  
pp 166-183 in Jacobs &  
Rosenbaum 1970
- 1970 English as a VSO language  
Language 46
- MAGNER T.F. 1955 Negation and Case Selection  
in Russian  
Word 11 pp 531-541
- MAXMUDOV X.X. (ed) 1955 Voprosy izučenia russkogo  
jazyka  
Alma-Ata
- MEL'ČUK I.A. 1970 Towards a functioning  
model of language  
in Bierwisch & Meidolph 1970  
pp 198-207
- MEL'ČUK I.A. &  
XOLODOVIČ A.A. 1970 K teorii grammatičeskogo  
zaloga  
Narody Azii i Afriki 4
- MILLER J.E. 1970 Tense and Aspect in Russian  
Ph.D. thesis, University of  
Edinburgh

- |                                   |             |   |
|-----------------------------------|-------------|---|
| MILLER J.E.                       | 1970        | Stative verbs in Russian<br>Journal of Linguistics 6  |
| —                                 | 1971        | Phrasal conjunction in<br>Russian<br>Foundations of Language 7  |
| —                                 | 1972        | Remarks on the 'category of<br>state' in Russian<br>to appear in Kiefer & Ruwet<br>(ed) - Generative Grammar in<br>Europe. Dordrecht, D. Reidel |
| —                                 | forthcoming | Towards an account of<br>quantifiers in Russian   |
| MRAZEK R.                         | 1964        | Sintaksis ruskogo<br>tvoritel'nogo<br>Praha   |
| MUČNIK I.P. &<br>PANOV M.V. (eds) | 1964        | Razvitie grammatiki i<br>leksiki sovremennogo ruskogo<br>jazyka<br>Moscow   |
| NILOV I.P.                        | 1930        | Russkij padež (očerk<br>sovremennago sklonenija)<br>Sofia. Pečatnica 'Vitosa'   |
| PADUČEVA E.V.                     | 1969        | Semantičeskij analiz<br>otricatel'nyx predloženíj v<br>russkom jazyke<br>Mašinnyj porevod i prikladnaja<br>lingvistika 12. Moscow               |
| —                                 | 1970        | The language of mathematical<br>logic as a model of natural<br>language<br>in Sign-Language-Culture<br>The Hague, Monton                        |
| PERLMUTTER D.M.                   | 1971        | Deep and Surface Structure<br>Constraints in Syntax<br>New York. Holt, Rinehart &<br>Winston  |
| PERROT J.                         | 1966        | Le fonctionnement du système<br>des cas en latin<br>Revue de Philologie 40  |
| PEŠKOVSKIJ A.M.                   | 1956        | Russkij sintaksis v<br>naučnom osveščeníi<br>Moscow   |

- POPOV A.S. 1964 Imenitel'nyj temy i drugie segmentirovannye konstrukcii v sovremennom russkom jazyke Mučnik & Panov 1964 pp 256-274
- POPOVA Z.D. 1969 Sistema podežnyx i predložno padežnyx form v russkom literaturnom jazyke XVII veka Voronež
- POSPJLOV N.S. 1970 O sintaksičeskom vyražennii kategorii opredelennosti-neopredelennosti v sovremennom russkom jazyke in Issledovania po sovremennomu russkomu jazyku. Moscow 1970
- POSTAL P.M. 1970 On the surface verb 'remind' Linguistic Inquiry 1 also pp 181-272 in Fillmore & Langendon 1971 (page references to this)
- 1971 Cross-over phenomena New York. Holt, Rinehart & Winston
- RASPOPOV I.P. 1970 Stroenie prostogo predložženija v sovremennom russkom jazyke Moscow. Prosveščenie
- RAVIČ R.D. 1971 O vybore padeža prjamogo dopolnenija pri perexodnyx glagolax s otricaniem v russkom jazyke in Fonetika, Fonologija, Grammatika. Moscow
- REIBEL D.A. & SCHANE S.A. 1969 Modern Studies in English: Readings in Transformational Grammar Englewood Cliffs. Prentice Hall
- RESTAN P.A. 1960 The objective case in negated clauses in Russian Scando-Slavica pp 92-112
- ROBINSON J.J. 1970 Dependency structures and transformational rules Language 46

- |                                     |      |  |
|-------------------------------------|------|--|
| ROSENBAUM P.S.                      | 1967 | The Grammar of English<br>predicate complement<br>constructions<br>Cambridge, Mass. M.I.T. Press                                 |
| ROSS J.R.                           | 1967 | Constraints on variables<br>in Syntax<br>Indiana University<br>Linguistics Club  |
| —                                   | 1969 | A proposed rule of tree-<br>pruning<br>in Reibel & Schane 1969   |
| RŮŽIČKA R.                          | 1970 | Semantik des Verbs und Syntax<br>des Satzes<br>Zeitschrift für Slawistik 15  |
| SAJKIEV X.M.                        | 1955 | Konstrukcii s vinitel'nyj<br>padežom v sovremennom russkom<br>jazyke<br>in Maxmudov 1955   |
| SANDERS G.                          | 1970 | Invariant ordering<br>Indiana University<br>Linguistics Club   |
| ŠAUMJAN S.K.                        | 1965 | Strukturnaja lingvistika<br>Moscow. Nauka  |
| SEUREN P.M.                         | 1969 | Operators and nucleus<br>Cambridge. Cambridge<br>University Press  |
| SØRENSEN H.C.                       | 1949 | Contribution à la discussion<br>sur la théorie des cas<br>Travaux du Cercle Linguistique<br>de Copenhague 5. pp 123-133          |
| —                                   | 1957 | Studies on case in Russian<br>Copenhagen   |
| STANIŠEVA D.S.                      | 1966 | Vinitel'nyj padež v<br>vostočnoslavjanskix jazykax<br>Sofia  |
| STEINBERG D.D. &<br>JAKOBOVITS L.A. | 1971 | Semantics. An interdisciplinary<br>reader in philosophy, linguistics<br>& psychology<br>Cambridge. Cambridge University<br>Press |



- ŠVEDOVA N. Jn. (ed) 1970 Grammatika sovremennogo russkogo literaturnogo jazyka Moscow
- THOMPSON S.A. 1971 On the deep structure of relative clauses  
pp 79-96 in Fillmore & Langendoen 1971
- UGLITSKY Z. 1956 Accusative and genitive with transitive verbs preceded by the negative in Russian Slavonic and East European Review pp 377-387
- VEYRENC J. 1971 Sintaksičeskij analiz tvoritel'nogo podeža  
pp 129-139 in Issledovanija po slavjanskomu jazykoznaniju. Moscow.
- VINOGRADOV V.V. (ed) 1952-4 Grammatika russkogo jazyka (3 vols) Moscow
- VOGT H. 1949 L'étude des systèmes de cas Travaux du Cercle Linguistique de Copenhague 5, pp 112-122
- WORTH D.S. 1958 Transform analysis of Russian instrumental constructions Word 14
- XOLODOVIČ A.A. (ed) 1969 Tipologija kauzativnyx konstrukcij Leningrad
- ŽOLKOVSKIJ A.K. & MEL'ČUK I.A. 1967 O semantičeskom sinteze Problemy kibernetiki 19 pp 177-238
- ZOLOTOVA G.A. 1964 Razvitie nekotoryx tipov imennyx dvusostavnyx predloženij v sovremennom russkom jazyke Mučnik & Panov 1964. pp 275-302